LRC

PRODUCTS CATALOGUE

LESHAN RADIO COMPANY, LTD
乐山无线电股份有限公司2008-2009

中国·四川·乐山
LESHAN SICHUAN CHINA

产品目录

COMPANY BRIEF

LESHAN RADIO COMPANY, LTD.
乐山无线电股份有限公司

公司简介

LRC创建于1970年，是从事半导体器件制造的大型专业电子企业集团，2001年起连续5年成为中国电子信息百强企业。

旗下拥有多家关联企业，其中1995年与摩托罗拉创建的合资工厂目前已成为亚洲著名的年产超过300亿只的大规模的半导体器件生产基地，总投资已超过3亿美圆。

Founded in 1970, LRC is a professional electronic group majoring in the manufacturing of semiconductor products. Since 2001, LRC has been recognized by Ministry of China Information Industry as one of China Top 100 Electronic & Information Enterprises for five consecutive years.

LRC owns quite several affiliated companies, of which the joint venture set up in 1995 with Motorola has become a famous semiconductor manufacturing base in Asia with annual capacity over 30 billion units and total investment over 300 Million U.S. Dollars.

愿景 VISION

建设世界级综合电子企业
Build World Class Comprehensive Electronic Enterprise

使命 MISSION

以最低的成本制造出世界级质量的半导体产品，以满足国内外用户的需要。
Manufacture world class quality semiconductor products with lowest cost to meet the demand of customers at home and abroad.

产品 PRODUCT

PRODUCTS CATEGORY

- 开关二极管
- 稳压二极管
- 整流二极管
- 肖特基二极管
- 桥式整流器
- TVS/ESD保护器件
- 通用放大三极管
- 开关三极管
- 带阻三极管
- MOSFET
- 通用运放比较器
- 可编程电压基准
- 三端稳压器
- 低压差稳压器
- 白光驱动
- DC/DC
- AC/DC
- 单门逻辑

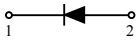
- Switching Diodes
- Zener Diodes
- Rectifier Diodes
- Schottky Diodes
- Bridge Rectifiers
- TVS / ESD Protectives
- General Amplifying Transistors
- Switching Transistors
- Digital Transistors
- MOSFET
- Amplifiers and Comparators
- Programmable Precision Voltage Regulators
- Three Terminal Positive Voltage Regulators
- LDO
- WLED Drivers
- DC/DC
- AC/DC
- One-Gate Logic

目 录 CONTENT

SWITCHING DIODES

1. SOD–923 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F@I_F		I_R@V_R		trr
				(V)	(mA)	(uA)	(V)	(ns)
L1SS400CST1G	3	80	100	1.2	100	0.1	80	4.0



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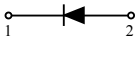
2. SOD–723 Surface Mount Swithing Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R	
				Max (V)	I_F (mA)	Max (μA)	V_R (V)
L1SS400GT1G	3	80	100	1.2	100	0.1	80



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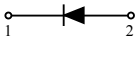
3. SC–79/ SOD–523 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)
				Max (V)	I_F (mA)	Max (μA)	V_R (V)	
L1SS400T1G	A	90	100	1.2	100	0.1	80	4.0
LBAS516T1G	6	75	250	1.25	150	1.0	75	4.0



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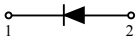
4. SC–76/ SOD–323 Surface Mount Switching Diodes

Device	Device Marking	V_R		I_F (mA)	V_F (V)	I_R		C_D (f = 1.0MHz)		trr Max (ns)
		(V)	I_R (μA)			Max (μA)	V_R (V)	Max (pF)	V_R (V)	
L1SS355T1G	5D	80	–	100	1.2	0.1	80	3	0.5	4
LBAS16HT1G	A6	75	100	200	1.25	1.0	75	2.0	0	6.0
LBAS20HT1G	JR	200	100	200	1.25	0.1	150	5.0	0	50
LBAS21HT1G	JS	250	100	200	1.25	0.1	200	5.0	0	50
LMDL914T1G	5D	100	100	200	1.0	5.0	75	4.0	0	4.0
LMDL6050T1G	5A	70	100	200	1.1	0.1	50	2.5	0	4.0



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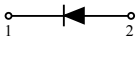
5. SC–76/ SOD–323 Surface Mount Band-Switching and PIN Diodes

Device	Device Marking	V_R (V)	I_F (mA)	I_R		C_D (f =1.0MHz)			r_D(f =100MHz)	
				Max (μA)	V_R (V)	typ (pF)	Max (pF)	V_R (V)	Max (Ω)	I_F (mA)
L1SS356T1G	B	35	100	0.01	25	–	1.2	6	0.9	2



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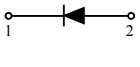
6. SOD–123 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)
				Max (V)	I_F (mA)	Max (μA)	V_R (V)	
L1N4148WT1G	T4	75	150	1.25	150	50	75	4



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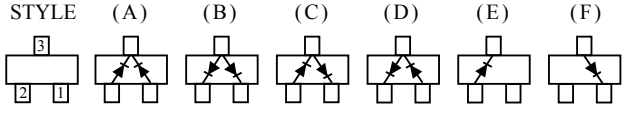
7. SC–89 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)	Style
				Max (V)	I_F (mA)	Max (μA)	V_R (V)		
LBAS16TT1G	A6	75	200	1.25	150	1.0	75	6.0	E
LDAN222T1G	N	80	100	1.2	100	0.1	70	4.0	A



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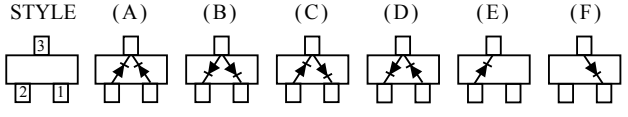
8. SC–70/ SOT–323 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)	Style
				Max (V)	I_F (mA)	Max (μA)	V_R (V)		
LBAS16WT1G	A6	75	200	1.25	150	0.02	20	6.0	E
LBAV70WT1G	A4	70	200	1.0	50	5.0	70	6.0	A
LBAV99WT1G	A7	70	215	1.0	50	2.5	70	6.0	C
LBAW56WT1G	A1	70	200	1.25	150	2.5	70	6.0	B
LDAN202UT1G	N	80	100	1.2	100	0.1	70	4.0	A
LM1MA142KT1G	MI	80	100	1.2	100	0.1	75	3.0	E
LM1MA142WAT1G	MO	80	150	1.2	100	0.1	75	10	B
LM1MA141WKT1G	MT	40	150	1.2	100	0.1	35	3.0	A
LM1MA142WKT1G	MU	80	150	1.2	100	0.1	75	3.0	A
LM1MA141KT1G	MH	40	100	1.2	100	0.1	35	3.0	E
LM1MA141WAT1G	MN	40	100	1.2	100	0.1	35	10	B
LMBD7000WT1G	M5C	100	200	1.1	100	1.0	50	4.0	D



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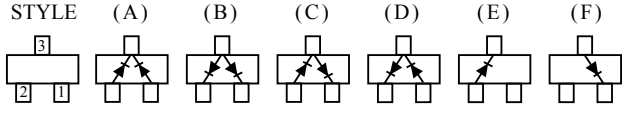
9. SOT–23/ TO–236AB Surface Mount Switching Diodes

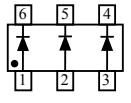
Device	Device Marking	$V_{(BR)R}$ Min (V)	$V_{(BR)R}$ I_R (μA)	I_F (mA)	V_F Max (V)	V_F I_F (mA)	I_R Max (μA)	I_R V_R (V)	trr (ns)	Style
L1SS181LT1G	A3	80	–	100	0.71	10	0.5	80	4	B
L1SS226LT1G	C3	80	–	100	0.71	10	0.5	80	4	C
L1SS184LT1G	B3	80	100	100	1.2	100	0.5	80	50	E
LBAL99LT1G	JF	70	–	100	1.25	150	2.5	70	6	F
LBAS16LT1G	A6	75	100	200	1	50	1	75	6	E
LBAS20LT1G	JR	200	–	200	1.25	200	0.1	150	50	E
LBAS21CLT1G	JS3	250	–	200	1.25	200	1	200	50	A
LBAS21LT1G	JS	250	100	200	1	100	0.1	200	50	E
LBAS21SLT1G	JT	250	100	225	1	100	0.1	200	50	C
LBAV70LT1G	A4	70	100	200	1	50	5	70	6	A
LBAV74LT1G	JA	50	5	200	1.1	100	0.1	50	4	A
LBAV99LT1G	A7	70	100	215	1	50	2.5	70	4	C
LBAW56LT1G	A1	70	100	200	1	50	2.5	70	6	B
LDAN217LT1G	BA	80	–	100	1.2	100	0.1	70	4	C
LMBD2836LT1G	A2	75	100	100	1	10	0.1	50	4	B
LMBD2838LT1G	MA6	75	100	100	1	10	0.1	50	4	A
LMBD3004SLT1G	KAE	350	100	225	1.25	200	0.1	240	50	C
LMBD6050LT1G	5A	70	100	200	1.1	100	0.1	50	4	E
LMBD6100LT1G	5BM	70	100	200	1.1	100	0.1	50	4	A
LMBD7000LT1G	M5C	100	100	200	1.1	100	1	50	4	C
LMBD914LT1G	5D	100	100	200	1	10	5	75	4	E



PACKAGE

10. SC–88/ SOT–363 Surface Mount Switching Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)
				Max (V)	I_F (mA)	Max (μA)	V_R (V)	
LBAS16TW1T1G	KA2	75	300	1.25	150	50	75	4
LHN2D01FUDW1T1G	A1	80	100	1.2	100	0.5	80	4



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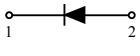
11. LL–34 Surface Mount Swithing Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		trr (ns)
				Max (V)	I_F (mA)	Max (μA)	V_R (V)	
LL4148	–	75	150	1.0	10	5	75	4
LS4148	–	75	150	1.0	10	5	75	4



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12. Glass-Sealed Axial Swithing Diodes

ABSOLUTE MAXIMUM RATINGS

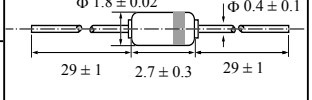
Device	V_{RM}(V)	V_R(V)	I_F(mA)	I_O(mA)	I_{FS}(A)	P(mW)	T_J(°C)	T_{stg}(°C)	Package (mm)
1N4148	100	75	450	150	0.7	500	175	- 65 ~ +175	DO-35
1SS110		35	100			150(P_d)	T_{opr} - 20~+60	- 65 ~ +125	DO-34
1SS265	35	20	10	100		150			

ELECTRICAL CHARACTERISTICS

Device	V_{FMAX}	B_V Min		I_R Max(μA)		C_t(pF)	t_{rr}(ns)	L_s
1N4148	@I_F=100mA 1.20	5μA 75	10μA 100	@ 25°C V_R=20V 0.025	@ 155°C V_R=20V 50	V_R=0 4	V_R=6V I_F=100mA 4	
1SS110	@I_F=10mA 1.0	$V_{(BR)R}$(I_R=10μA) 35		@V_R=25V 0.1	r_f(I_f=2mA f=100MHz) 0.9Ω	V_R=6 f=1MHz 1.2		(f=250MHz) 3nH
1SS265	@I_F=10mA 1.0			@V_R=20V 0.1	r_f(I_f=2mA f=100MHz) 0.6Ω	V_R=10 f=1MHz 1.5		

13. Glass-Sealed Axial PIN Switching Diodes

Device	Consult Device	V_{RM} (V)	V_R (V)	I_O (mA)	V_F (V)	I_F (mA)	I_R (μA)	V_R (V)	R_f (Ω) Max	(f=100MHz) I_F(mA)	C_T P_F Max	(f=1MHz) V_R(V)	Package (mm)
GK101	1SS238		20		0.85	2	0.1	15	0.9	2	1.2	6	
GK102	1SS216		35		1.0	10	0.1	20	0.6	10	2.0	10	
GK103	1S2222	30	28		1.1	100	1.0	28	1.0	10	1.0	15	
GK104	1SS155	35	30	100	0.85	2	0.1	15	0.9	2	1.4	6	
GK105	1SS110FS		35		1.0	10	0.1	25	0.9	2	1.2	6	
GK106	1SS103		35		1.1	100	1.0	35	0.6	2	2.0	15	
GK107	MA56		33		1.0	100	0.1	33	0.85	3	2.0	15	



DO-34

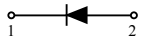
14. Glass-Sealed Axial High-Speed Switching Diodes

Device	Consult Device	V_{RM} (V)	V_R (V)	I_O (mA)	V_F (V)	I_F (mA)	I_R (μA)	V_R (V)	t_{rr}(ns) MAX	(I_F=10mA) V_R(V)	C_T P_F Max	(f=1MHz) V_R(V)	Package(mm)
K101	MA165	35	35	100	1.2	100	0.1	30	10	1	2	0	
K151	1SS133	40	40	110	1.2	100	0.5	35	4	6	3	0.5	DO-34
K152	1SS254	40	40	110	1.2	100	0.5	35	4	6(RL=50Ω)	3	0.5	
K153	1SS130	100	100	130	1.00	100	0.5	20	4	6(RL=50Ω)	4	0	

SCHOTTKY DIODES

1. SOD–923 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F@I_F		I_R@V_R	
				(V)	(mA)	(uA)	(V)
LRB520CS-30T1G	E	30	100	0.45	100	0.5	10
LRB521CS-30T1G	F	30	100	0.35	100	10	10
LRB751CS-40T1G	5	30	30	0.37	1	0.5	30



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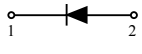
2. SOD–723 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R	
				Max (V)	I_F (mA)	Max (μA)	V_R (V)
LRB520G-30T1G	E	30	100	0.45	10	0.5	10
LRB521G-30T1G	F	30	100	0.35	10	10	10
LRB751G-40T1G	5	30	30	0.37	1	0.5	30



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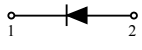
3. SC–79/ SOD–523 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R	
				Max (V)	I_F (mA)	Max (μA)	V_R (V)
LRB520S-30T1G	5J	30	200	0.60	200	1.0	10
LRB521S-30T1G	5M	30	200	0.50	200	30	10
LRB751S-40T1G	5	40	30	0.37	1.0	0.5	30



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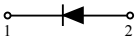
4. SC–76/ SOD–323 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R	
				Max (V)	I_F (mA)	Max (μA)	V_R (V)
LBAT54HT1G	JV	30	200	0.4	10	2	25
LMDL301T1G	4T	30	30	0.6	10	0.2	25
LRB501V-40T1G	4	40	100	0.55	100	3	10
LRB500V-40T1G	5	40	100	0.45	10	1	10
LRB751V-40T1G	5E	30	30	0.37	1	0.5	30
LRB551V-30T1G	D	20	500	0.36	100	100	20



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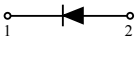
5. SOD–123 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R	
				Max (V)	I_F (mA)	Max (μA)	V_R (V)
LMBR130T1G	S3	30	1000	0.35	100	10	5
LMBR0520T1G	B2	20	500	0.385	500	250	20
LMBR0530T1G	B3	30	500	0.43	500	20	15
LMBR0540T1G	B4	40	500	0.51	500	10	20
LMSD301T1G	XT	30	200	0.45	1	0.2	25
LMSD701T1G	XH	70	200	0.5	1	0.2	35
LMSD103AT1G	S4	40	350	0.6	200	5	30
LMSD103BT1G	S5	30	350	0.6	200	5	30
LMSD103CT1G	S6	20	350	0.6	200	5	30



STYLE

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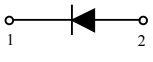
6 DO–214AC SMA Rectifiers

1.0 Ampere-Schottky Rectifiers

Device	Marking	V_{RRM} (V)	V_F (V)	I_{AV}(A)	I_R (μA)
SK12	K12	20	0.45	1.0	500
SK13	K13	30	0.5	1.0	500
SK14	K14	40	0.5	1.0	500
SK15	K15	50	0.7	1.0	500
SK16	K16	60	0.7	1.0	500
SK18	K18	80	0.85	1.0	500
SK19	K19	90	0.85	1.0	500
SK110	K110	100	0.85	1.0	500



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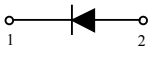
1.0 Ampere-Schottky Rectifiers With ESD Protection

Device	Marking	V_{RRM} (V)	I_F (A)	V_F (V)	I_R (mA)	I_{FSM}(A)
SM120A-E	S12	20	1	0.55	1	25
SM130A-E	S13	30	1	0.55	1	25
SM140A-E	S14	40	1	0.55	1	25
SM150A-E	S15	50	1	0.7	1	25
SM160A-E	S16	60	1	0.7	1	25
SM180A-E	S18	80	1	0.85	1	25
SM190A-E	S19	90	1	0.85	1	25
SM1100A-E	S110	100	1	0.85	1	25



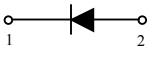
STYLE

PACKAGE

6.1 DO–214AC SMA Rectifiers

1.0-3.0 Ampere-Schottky Rectifiers

Device	Marking	V_{RRM}(V)	I_F(A)	V_F(V)	I_R(mA)	I_{FSM}(A)
SM120A	S12	20	1	0.55	1	25
SM130A	S13	30	1	0.55	1	25
SM140A	S14	40	1	0.55	1	25
SM150A	S15	50	1	0.7	1	25
SM160A	S16	60	1	0.7	1	25
SM180A	S18	80	1	0.85	1	25
SM190A	S19	90	1	0.85	1	25
SM1100A	S110	100	1	0.85	1	25
SM220A	S22	20	2	0.55	1	50
SM230A	S23	30	2	0.55	1	50
SM240A	S24	40	2	0.55	1	50
SM250A	S25	50	2	0.7	1	50
SM260A	S26	60	2	0.7	1	50
SM280A	S28	80	2	0.85	1	50
SM290A	S29	90	2	0.85	1	50
SM2100A	S210	100	2	0.85	1	50
SM320A	S32	20	3	0.55	2	100
SM330A	S33	30	3	0.55	2	100
SM340A	S34	40	3	0.55	2	100
SM350A	S35	50	3	0.7	2	100
SM360A	S36	60	3	0.7	2	100
SM380A	S38	80	3	0.85	2	100
SM390A	S39	90	3	0.85	2	100
SM3100A	S310	100	3	0.85	2	100



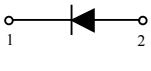
STYLE

PACKAGE

7. DO–214AA SMB Rectifiers

1.0-5.0 Ampere-Schottky Rectifiers

Device	Marking	V_{RRM} (V)	I_F (A)	V_F (V)	I_R (mA)	I_{FSM}(A)
SM120B	SM120B	20	1	0.55	1	25
SM130B	SM130B	30	1	0.55	1	25
SM140B	SM140B	40	1	0.55	1	25
SM150B	SM150B	50	1	0.7	1	25
SM160B	SM160B	60	1	0.7	1	25
SM180B	SM180B	80	1	0.85	1	25
SM190B	SM190B	90	1	0.85	1	25
SM1100B	SM1100B	100	1	0.85	1	25
SM220B	SM220B	20	2	0.55	1	50
SM230B	SM230B	30	2	0.55	1	50
SM240B	SM240B	40	2	0.55	1	50
SM250B	SM250B	50	2	0.7	1	50
SM260B	SM260B	60	2	0.7	1	50
SM280B	SM280B	80	2	0.85	1	50
SM290B	SM290B	90	2	0.85	1	50
SM2100B	SM2100B	100	2	0.85	1	50
SM320B	SM320B	20	3	0.55	2	100
SM330B	SM330B	30	3	0.55	2	100
SM340B	SM340B	40	3	0.55	2	100
SM350B	SM350B	50	3	0.7	2	100
SM360B	SM360B	60	3	0.7	2	100
SM380B	SM380B	80	3	0.85	2	100
SM390B	SM390B	90	3	0.85	2	100
SM3100B	SM3100B	100	3	0.85	2	100
SM520B	SM520B	20	5	0.55	5	120
SM530B	SM530B	30	5	0.55	5	120
SM540B	SM540B	40	5	0.55	5	120
SM550B	SM550B	50	5	0.7	5	120
SM560B	SM560B	60	5	0.7	5	120
SM580B	SM580B	80	5	0.85	5	120
SM590B	SM590B	90	5	0.85	5	120
SM5100B	SM5100B	100	5	0.85	5	120



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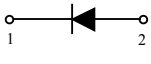
8. DO–214AB SMC Rectifiers

3.0-5.0 Ampere-Schottky Rectifiers

Device	Marking	V_{RRM} (V)	I_F (A)	V_F (V)	I_R (mA)	I_{FSM}(A)
SM320C	SM320C	20	3	0.55	2	100
SM330C	SM330C	30	3	0.55	2	100
SM340C	SM340C	40	3	0.55	2	100
SM350C	SM350C	50	3	0.75	2	100
SM360C	SM360C	60	3	0.75	2	100
SM380C	SM380C	80	3	0.85	2	100
SM390C	SM390C	90	3	0.85	2	100
SM3100C	SM3100C	100	3	0.85	2	100
SM520C	SM520C	20	5	0.55	5	120
SM530C	SM530C	30	5	0.55	5	120
SM540C	SM540C	40	5	0.55	5	120
SM550C	SM550C	50	5	0.7	5	120
SM560C	SM560C	60	5	0.7	5	120
SM580C	SM580C	80	5	0.85	5	120
SM590C	SM590C	90	5	0.85	5	120
SM5100C	SM5100C	100	5	0.85	5	120



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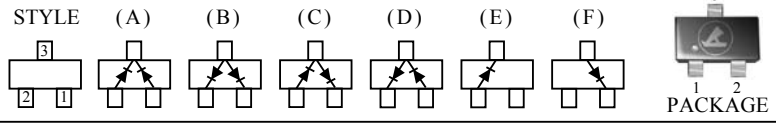
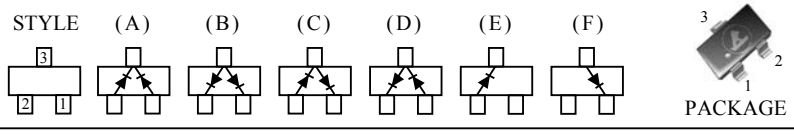
9. SC–89 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		Style
				Max (V)	I_F (mA)	Max (μA)	V_F (V)	
LRB715WT1G	3D	40	30	0.37	1	1.0	10	A



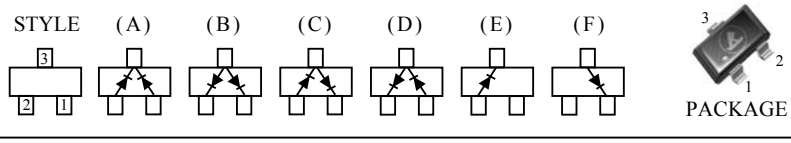
10. SC–70/ SOT–323 Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F		I_R		Style
				Max (V)	I_F (mA)	Max (μA)	V_F (V)	
LBAT54AWT1G	B7	30	200	0.4	10	2	25	B
LBAT54CWT1G	5C	30	200	0.4	10	2	25	A
LBAT54SWT1G	B8	30	200	0.4	10	2	25	C
LBAT54WT1G	B4	30	200	0.4	10	2	25	E
LRB706F-40T1G	3J	40	30	0.37	1	1.0	10	C
LRB715FT1G	3D	40	30	0.37	1	1.0	10	A
LRB717FT1G	3E	40	30	0.37	1	1.0	10	B



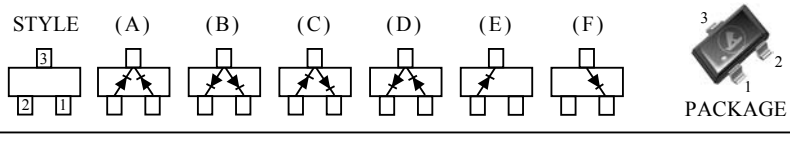
11. SOT–23/ TO–236AB Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	V_F@I_F		I_R@V_R		Style
				(V)	(mA)	(uA)	(V)	
LBAS40-05LT1G	45	200	40	0.38	1.0	0.2	30	A
LBAS70-05LT1G	EH	70	70	0.41	1.0	0.1	50	A
LRB425DLT1G	D3L	100	45	0.55	100	30	10	A
LRB491DLT1G	D2E	1000	25	0.45	1000	200	20	E



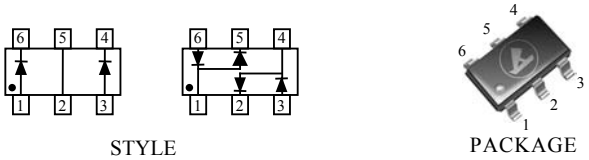
11.1 SOT–23/ TO–236AB Surface Mount Schottky Diodes

Device	Device Marking	V_R (V)	I_F (mA)	C_T		V_F		I_R		Style
				Max (pF)	V_R (V)	Max (V)	I_F (mA)	Max (μA)	V_R (V)	
LBAS40LT1G	B1	40	120	5	1	0.5	30	1	25	E
LBAS40–04LT1G	CB	40	120	5	1	0.5	30	1	25	C
LBAS40–06LT1G	L2	40	120	5	1	0.5	30	1	25	B
LBAS70–04LT1G	CG	70	70	2	0	0.75	10	0.1	50	C
LBAS70–06LT1G	GK	70	70	2	0	0.75	10	0.1	50	B
LBAS70LT1G	BE	70	70	2	0	0.75	10	0.1	50	E
LBAT54ALT1G	B6	30	200	10	1	0.4	10	2	25	B
LBAT54CLT1G	5C	30	200	10	1	0.4	10	2	25	A
LBAT54LT1G	JV3	30	200	10	1	0.4	10	2	25	E
LBAT54SLT1G	LD3	30	200	10	1	0.4	10	2	25	C
LMBD301LT1G	4T	30	30	1.5	15	0.6	10	2	25	E
LRB411DLT1G	D3E	20	500	20	10	0.5	500	30	10	E
LRB421LT1G	D3C	40	100	6	10	0.34	10	30	10	E
LRB425LT1G	D3L	40	100	6	10	0.34	10	30	10	A

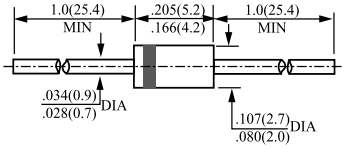
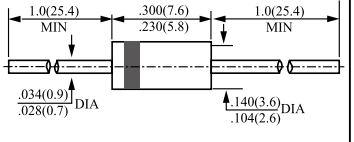
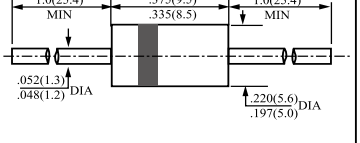


12. SC–88 Surface Mount Schottky Diodes

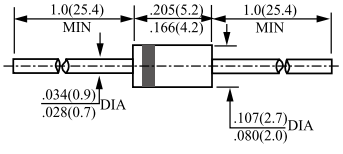
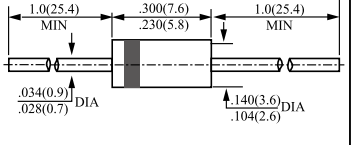
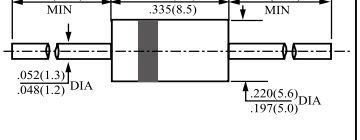
Device	Device Marking	V_R (V)	I_F (mA)	V_F@I_F		I_R@V_R	
				(V)	(mA)	(uA)	(V)
LBAT54DW1T1G	KLD	30	200	1.0	100	2.0	25
LBAT54SDW1T1G	KL8	30	200	1.0	100	2.0	25



13. Plastic-Sealed Axial 1–5A Schottky Barrier Rectifiers

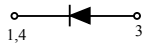
Device	V_{RRM} (V)	I_{AV} (A)	V_F (V)	I_R (mA)	I_{FSM} (A)	Package Dimensions
1N5817	20	1.0	0.45	1.0	25	DO - 41
1N5818	30	1.0	0.50	1.0	25	
1N5819	40	1.0	0.55	1.0	25	
1N5820	20	3.0	0.475	1.0	80	DO - 201AD
1N5821	30	3.0	0.500	1.0	80	
1N5822	40	3.0	0.525	1.0	80	
SB120	20	1.0	0.50	1.0	40	 DO – 41
SB130	30	1.0	0.50	1.0	40	
SB140	40	1.0	0.50	1.0	40	
SB150	50	1.0	0.70	1.0	40	
SB160	60	1.0	0.70	1.0	40	
SB180	80	1.0	0.84	1.0	40	
SB190	90	1.0	0.84	1.0	40	
SB1100	100	1.0	0.84	1.0	40	
SB220	20	2.0	0.50	1.0	50	 DO –15
SB230	30	2.0	0.50	1.0	50	
SB240	40	2.0	0.50	1.0	50	
SB250	50	2.0	0.70	1.0	50	
SB260	60	2.0	0.70	1.0	50	
SB280	80	2.0	0.84	1.0	50	
SB290	90	2.0	0.84	1.0	50	
SB2100	100	2.0	0.84	1.0	50	
SB320	20	3.0	0.50	2.0	80	 DO - 201AD
SB330	30	3.0	0.50	2.0	80	
SB340	40	3.0	0.50	2.0	80	
SB350	50	3.0	0.70	5.0	75	
SB360	60	3.0	0.70	5.0	75	
SB380	80	3.0	0.84	5.0	75	
SB390	90	3.0	0.84	5.0	75	
SB3100	100	3.0	0.84	5.0	75	
SB520	20	5.0	0.50	1.0	150	
SB530	30	5.0	0.50	1.0	150	
SB540	40	5.0	0.50	1.0	150	
SB550	50	5.0	0.70	1.0	150	
SB560	60	5.0	0.70	1.0	150	
SB580	80	5.0	0.84	1.0	150	
SB590	90	5.0	0.84	1.0	150	
SB5100	100	5.0	0.84	1.0	150	

14. Plastic-Sealed Axial 1–5A Schottky Rectifiers with ESD Protection

Device	V_{RRM}(V)	I_{AV}(A)	V_F(V)	I_R(mA)	I_{FSM}(A)	Package Dimensions
1N5817-E	20	1.00	0.45	1.00	25	DO - 41
1N5818-E	30	1.00	0.50	1.00	25	
1N5819-E	40	1.00	0.55	1.00	25	
1N5820-E	20	3.00	0.475	1.00	80	DO - 201AD
1N5821-E	30	3.00	0.500	1.00	80	
1N5822-E	40	3.00	0.525	1.00	80	
SB120-E	20	1.00	0.50	1.00	40	 DO – 41
SB130-E	30	1.00	0.50	1.00	40	
SB140-E	40	1.00	0.50	1.00	40	
SB150-E	50	1.00	0.70	1.00	40	
SB160-E	60	1.00	0.70	1.00	40	
SB180-E	80	1.00	0.84	1.00	40	
SB190-E	90	1.00	0.84	1.00	40	
SB1100-E	100	1.00	0.84	1.00	40	
SB220-E	20	2.00	0.50	1.00	50	 DO –15
SB230-E	30	2.00	0.50	1.00	50	
SB240-E	40	2.00	0.50	1.00	50	
SB250-E	50	2.00	0.70	1.00	50	
SB260-E	60	2.00	0.70	1.00	50	
SB280-E	80	2.00	0.84	1.00	50	
SB290-E	90	2.00	0.84	1.00	50	
SB2100-E	100	2.00	0.84	1.00	50	
SB320-E	20	3.00	0.50	2.00	80	 DO - 201AD
SB330-E	30	3.00	0.50	2.00	80	
SB340-E	40	3.00	0.50	2.00	80	
SB350-E	50	3.00	0.70	5.00	75	
SB360-E	60	3.00	0.70	5.00	75	
SB380-E	80	3.00	0.84	5.00	75	
SB390-E	90	3.00	0.84	5.00	75	
SB3100-E	100	3.00	0.84	5.00	75	
SB520-E	20	5.00	0.50	1.00	150	
SB530-E	30	5.00	0.50	1.00	150	
SB540-E	40	5.00	0.50	1.00	150	
SB550-E	50	5.00	0.70	1.00	150	
SB560-E	60	5.00	0.70	1.00	150	
SB580-E	80	5.00	0.84	1.00	150	
SB590-E	90	5.00	0.84	1.00	150	
SB5100-E	100	5.00	0.84	1.00	150	

15. Plastic-Sealed TO–220AC Schottky Rectifiers

Device	V_{RRM} Min(V)	V_F Max(V)	I_{RM} Max(μA)	$I_{O(rec)}$ Max(A)	I_{FSM} Max(A)	Package Dimensions
LMBR10100G	100	0.8	100	10	150	
LMBR1035G	35	0.84	100	10	150	
LMBR1045G	45	0.84	100	10	150	
LMBR1060G	60	0.8	6000	10	150	
LMBR1080G	80	0.8	6000	10	150	
LMBR1090G	90	0.8	6000	10	150	
LMBR1635G	35	0.63	200	16	150	
LMBR1645G	45	0.63	200	16	150	
LMBR2515LG	15	0.45	15000	25	150	
LMBR40250G	250	0.97	30	40	150	
LMBR735G	35	0.84	10	7.5	150	
LMBR745G	45	0.84	10	7.5	150	
NRVB1035G	35	0.84	100	10	150	



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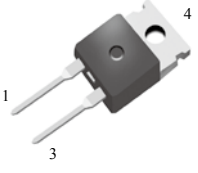
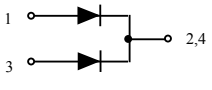


PACKAGE

16. Plastic-Sealed TO–220AB Schottky Rectifiers

Device	V_{RRM} Min(V)	V_F Max(V)	I_{RM} Max(μA)	$I_{O(rec)}$ Max(A)	I_{FSM} Max(A)	Package Dimensions
LMBR20H150CTG	150	0.68	50	20	180	
LMBR20L45CTG	45	0.63	500	20	180	
LMBR30H150CTG	150	0.73	60	30	200	
LMBR30H30CTG	30	0.55	800	30	260	
LMBR30L45CTG	45	0.61	650	30	190	
LMBR10H100CTG	100	0.85	3.5	10	180	
LMBR1535CTG	35	0.84	100	15	150	
LMBR1545CTG	45	0.84	100	15	150	
LMBR16100CTG	100	0.84	100	16	150	
LMBR20100CTG	100	0.95	10	20	150	
LMBR20200CTG	200	1	1000	20	150	
LMBR2030CTLG	30	0.58	5000	20	150	
LMBR2045CTG	45	0.84	100	20	150	
LMBR2060CTG	60	0.95	10	20	150	
LMBR2080CTG	80	0.95	10	20	150	
LMBR2090CTG	90	0.95	10	20	150	
LMBR2090CTLFAJG	90	0.95	10	20	150	
LMBR20H100CTG	100	0.88	4.5	20	250	



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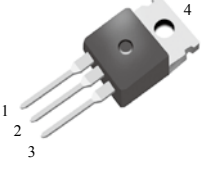
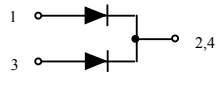
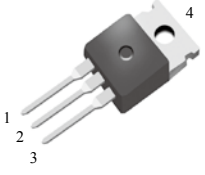
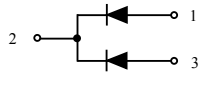
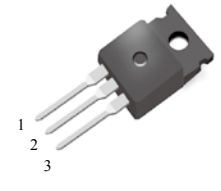


PACKAGE

16.1 Plastic-Sealed TO–220AB Schottky Rectifiers

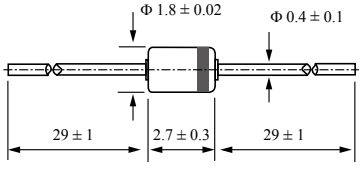
Device	V_{RRM} Min(V)	V_F Max(V)	I_{RM} Max(μA)	$I_{O(rec)}$ Max(A)	I_{FSM} Max(A)	Package Dimensions
LMBR2535CTG	35	0.82	200	30	150	 STYLE  PACKAGE
LMBR2535CTLG	35	0.47	5000	25	150	
LMBR2545CTG	45	0.82	20	30	150	
LMBR3045STG	45	0.76	200	30	150	
LMBR30H100CTG	100	0.93	4.5	30	250	
LMBR30H60CTG	60	0.78	300	30	260	
LMBR4015CTLG	15	0.54	10000	40	150	
LMBR40250TG	250	0.97	30	40	150	
LMBR40L45CTG	45	0.63	1200	40	200	
LMBR41H100CTG	100	0.9	10	40	350	
LMBR60H100CTG	100	0.98	10	60	350	
LMBR60L45CTG	45	0.73	1200	60	200	

17. Plastic-Sealed TO–220FP Schottky Rectifiers

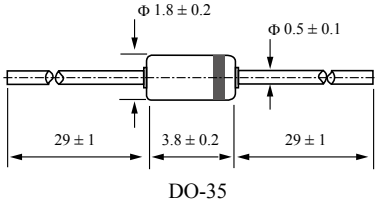
Device	V_{RRM} Min(V)	V_F Max(V)	I_{RM} Max(μA)	$I_{O(rec)}$ Max(A)	I_{FSM} Max(A)	Package Dimensions
LMBRF10H150CTG	150	0.69	45	10	150	 STYLE  PACKAGE
LMBRF20H150CTG	150	0.68	50	20	180	
LMBRF20L45CTG	45	0.63	500	20	180	
LMBRF30H150CTG	150	0.73	60	30	200	
LMBRF30L45CTG	45	0.61	650	30	190	
LMBRF20100CTG	100	0.95	150	20	150	
LMBRF20200CTG	200	1	1000	20	150	
LMBRF2060CTG	60	0.95	150	20	150	
LMBRF20H100CTG	100	0.88	4.5	20	250	
LMBRF2545CTG	45	0.7	200	25	150	
LMBRF30H60CTG	60	0.78	300	30	260	
LMBRF40250TG	250	0.97	30	40	150	

18. Glass-Sealed Axial Schottky Barrier Diodes

Device	Absoluste maximum ratings (T_A=25°C)													Package
	V_{RM} (V)	V_R (V)	I_O (mA)	$I_{FSM(A)}$ 60Hz 1cycle	T_j (°C)	T_{stg} (°C)	V_F(V) Max	I_F(mA)	I_R(μA) Max	V_R(V)	C_T(pF) Max	V_R(V)	f (MHz)	
RB721Q	25	20	30	0.2	125	-40~+125	0.37	1	1	10	2	1	1	DO-34 or DO-35
MA700A	30	30	30	0.2	125	-40~+125	0.4	1	0.5	30	2	1	1	



DO-34
(mm)



DO-35
(mm)

ZENER DIODES

1. SC–79/ SOD–523 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Device	Device Marking	Zener voltage(Note 1)				Zener Impedance			Leakage Current		ΘV_Z(mV/k)		C @V_R=0
		V_Z(V)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R@V_R		@I_{ZK}		f=1MHz
		Min.	Nom	Max.	mA	Ω	Ω	mA	μA	V	Min.	Max.	pF
LM5Z2V4T1G	00	2.2	2.4	2.6	5	100	1000	1.0	50	1.0	-3.5	0	450
LM5Z2V7T1G	01	2.5	2.7	2.9	5	100	1000	1.0	20	1.0	-3.5	0	450
LM5Z3V0T1G	02	2.8	3.0	3.2	5	100	1000	1.0	10	1.0	-3.5	0	450
LM5Z3V3T1G	05	3.1	3.3	3.5	5	95	1000	1.0	5	1.0	-3.5	0	450
LM5Z3V6T1G	06	3.4	3.6	3.8	5	90	1000	1.0	5	1.0	-3.5	0	450
LM5Z3V9T1G	07	3.7	3.9	4.1	5	90	1000	1.0	3	1.0	-3.5	-2.5	450
LM5Z4V3T1G	08	4.0	4.3	4.6	5	90	1000	1.0	3	1.0	-3.5	0	450
LM5Z4V7T1G	09	4.4	4.7	5.0	5	80	800	1.0	3	2.0	-3.5	0.2	260
LM5Z5V1T1G	0A	4.8	5.1	5.4	5	60	500	1.0	2	2.0	-2.7	1.2	225
LM5Z5V6T1G	0C	5.2	5.6	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	200
LM5Z6V2T1G	0E	5.8	6.2	6.6	5	10	100	1.0	3	4.0	0.4	3.7	185
LM5Z6V8T1G	0F	6.4	6.8	7.2	5	15	160	1.0	2	4.0	1.2	4.5	155
LM5Z7V5T1G	0G	7.0	7.5	7.9	5	15	160	1.0	1	5.0	2.5	5.3	140
LM5Z8V2T1G	0H	7.7	8.2	8.7	5	15	160	1.0	0.7	5.0	3.2	6.2	135
LM5Z9V1T1G	0K	8.5	9.1	9.6	5	15	160	1.0	0.2	7.0	3.8	7.0	130
LM5Z10VT1G	0L	9.4	10	10.6	5	20	160	1.0	0.1	8.0	4.5	8.0	130
LM5Z11VT1G	0M	10.4	11	11.6	5	20	160	1.0	0.1	8.0	5.4	9.0	130
LM5Z12VT1G	0N	11.4	12	12.7	5	25	80	1.0	0.1	8.0	6.0	10	130
LM5Z13VT1G	0P	12.4	13.25	14.1	5	30	80	1.0	0.1	8.0	7.0	11	120

Note 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.

STYLE

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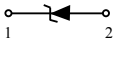
1.1 SC–79/ SOD–523 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Device	Device Marking	Zener voltage(Note 1)				Zener Impedance			Leakage Current		ΘV_Z(mV/k)		C @V_R=0
		V_Z(V)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R@V_R		@I_{ZK}		f=1MHz
		Min.	Nom	Max.	mA	Ω	Ω	mA	μA	V	Min.	Max.	pF
LM5Z15VT1G	0T	14.3	15	15.8	5	30	200	1.0	0.05	10.5	9.2	13	110
LM5Z16VT1G	0U	15.3	16.2	17.1	2	40	200	1.0	0.05	11.2	10.4	14	105
LM5Z18VT1G	0W	16.8	18	19.1	2	45	225	1.0	0.05	12.6	12.4	16	100
LM5Z20VT1G	0Z	18.8	20	21.2	2	55	225	1.0	0.05	14.0	14.4	18	85
LM5Z22VT1G	10	20.8	22	23.3	2	55	250	1.0	0.05	15.4	16.4	20	85
LM5Z24VT1G	11	22.8	24.2	25.6	2	70	120	1.0	0.05	16.8	18.4	22	80
LM5Z27VT1G	12	25.1	27	28.9	2	80	300	1.0	0.05	18.9	21.4	25.3	70
LM5Z30VT1G	14	28	30	32	2	80	300	1.0	0.05	21.0	24.4	29.4	70
LM5Z33VT1G	18	31	33	35	2	80	300	1.0	0.05	23.2	27.4	33.4	70
LM5Z36VT1G	19	34	36	38	2	90	500	1.0	0.05	25.2	30.4	37.4	70
LM5Z39VT1G	20	37	39	41	2	130	500	1.0	0.05	27.3	33.4	41.2	45
LM5Z43VT1G	21	40	43	46	1	150	500	1.0	0.05	30.1	37.6	46.6	40
LM5Z47VT1G	1A	44	47	50	1	170	500	1.0	0.05	32.9	42.0	51.8	40
LM5Z51VT1G	1C	48	51	54	1	180	500	1.0	0.05	35.7	46.6	57.2	40
LM5Z56VT1G	1D	52	56	60	1	200	500	1.0	0.05	39.2	52.2	63.8	40
LM5Z62VT1G	1E	58	62	66	1	215	500	1.0	0.05	43.4	58.8	71.6	35
LM5Z68VT1G	1F	64	68	72	1	240	500	1.0	0.05	47.6	65.6	79.8	35
LM5Z75VT1G	1G	70	75	79	1	255	500	1.0	0.05	52.5	73.4	88.6	35

Note 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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PACKAGE

1.2 SC–79/ SOD–523 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Device	Device Marking	Zener Voltage Vz(V)			Operating Resistance Zz(Ω)		Rising Operating Resistance Zz(Ω)		Reverse Current I_R(uA)	
		Min.	Max.	I_Z(mA)	Max.	I_Z(mA)	Max.	I_Z(mA)	Max.	V_R(V)
LEDZ2.4BT1G	22	2.43	2.63	5.0	100	5.0	1000.0	0.5	100	1.0
LEDZ2.7BT1G	32	2.69	2.91	5.0	110	5.0	1000.0	0.5	100	1.0
LEDZ3.0BT1G	42	3.01	3.22	5.0	120	5.0	1000.0	0.5	50	1.0
LEDZ3.3BT1G	52	3.32	3.53	5.0	120	5.0	1000.0	0.5	20	1.0
LEDZ3.6BT1G	62	3.600	3.845	5.0	100	5.0	1000.0	1.0	10.0	1.0
LEDZ3.9BT1G	72	3.890	4.160	5.0	100	5.0	1000.0	1.0	5.0	1.0
LEDZ4.3BT1G	82	4.170	4.430	5.0	100	5.0	1000.0	1.0	5.0	1.0
LEDZ4.7BT1G	92	4.550	4.750	5.0	100	5.0	800.0	0.5	2.0	1.0
LEDZ5.1BT1G	A2	4.980	5.200	5.0	80	5.0	500.0	0.5	2.0	1.5
LEDZ5.6BT1G	C2	5.490	5.730	5.0	60	5.0	200.0	0.5	1.0	2.5
LEDZ6.2BT1G	E2	6.060	6.330	5.0	60	5.0	100.0	0.5	1.0	3.0
LEDZ6.8BT1G	F2	6.650	6.930	5.0	40	5.0	60.0	0.5	0.5	3.5
LEDZ7.5BT1G	H2	7.280	7.600	5.0	30	5.0	60.0	0.5	0.5	4.0
LEDZ8.2BT1G	J2	8.020	8.360	5.0	30	5.0	60.0	0.5	0.5	5.0
LEDZ9.1BT1G	L2	8.850	9.230	5.0	30	5.0	60.0	0.5	0.5	6.0
LEDZ10BT1G	05	9.770	10.210	5.0	30	5.0	60.0	0.5	0.1	7.0
LEDZ11BT1G	15	10.760	11.220	5.0	30	5.0	60.0	0.5	0.1	8.0
LEDZ12BT1G	25	11.740	12.240	5.0	30	5.0	80.0	0.5	0.1	9.0
LEDZ13BT1G	35	12.910	13.490	5.0	37	5.0	80.0	0.5	0.1	10.0
LEDZ15BT1G	45	14.340	14.980	5.0	42	5.0	80.0	0.5	0.1	11.0
LEDZ16BT1G	55	15.850	16.510	5.0	50	5.0	80.0	0.5	0.1	12.0
LEDZ18BT1G	65	17.560	18.350	5.0	65	5.0	80.0	0.5	0.1	13.0
LEDZ20BT1G	75	19.520	20.390	5.0	85	5.0	100.0	0.5	0.1	15.0
LEDZ22BT1G	85	21.540	22.470	5.0	100	5.0	100.0	0.5	0.1	17.0
LEDZ24BT1G	95	23.720	24.780	5.0	120	5.0	120.0	0.5	0.1	19.0
LEDZ27BT1G	A5	26.190	27.530	2.0	150	2.0	150.0	0.5	0.1	21.0
LEDZ30BT1G	C5	29.190	30.690	2.0	200	2.0	200.0	0.5	0.1	23.0
LEDZ33BT1G	E5	32.150	33.790	2.0	250	2.0	250.0	0.5	0.1	25.0
LEDZ36BT1G	F5	35.070	36.870	2.0	300	2.0	300.0	0.5	0.1	27.0

Note 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.

STYLE

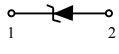
PACKAGE

2. SC–76/ SOD–323 Surface Mount Zener Diodes

(T_A = 25°C unless otherwise notde, V_F = 0.9V Max @ I_F= 10mA for all types)

Device	Device Marking	Zener Voltage(Note 1)				Zener Impedance			Leakage Current		ΘV_Z(mV/k) @I_{ZT}		C@V_R=0 f=1MHz (pF)
		V_Z(V)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R@V_R				
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	Min	Max	
LM3Z2V4T1G	00	2.2	2.4	2.6	5	100	1000	0.5	50	1.0	-3.5	0	450
LM3Z2V7T1G	01	2.5	2.7	2.9	5	100	1000	0.5	20	1.0	-3.5	0	450
LM3Z3V0T1G	02	2.8	3.0	3.2	5	100	1000	0.5	10	1.0	-3.5	0	450
LM3Z3V3T1G	05	3.1	3.3	3.5	5	95	1000	0.5	5	1.0	-3.5	0	450
LM3Z3V6T1G	06	3.4	3.6	3.8	5	90	1000	0.5	5	1.0	-3.5	0	450
LM3Z3V9T1G	07	3.7	3.9	4.1	5	90	1000	0.5	3	1.0	-3.5	-2.5	450
LM3Z4V3T1G	08	4.0	4.3	4.6	5	90	1000	0.5	3	1.0	-3.5	0	450
LM3Z4V7T1G	09	4.4	4.7	5.0	5	80	800	0.5	3	2.0	-3.5	0.2	260
LM3Z5V1T1G	0A	4.8	5.1	5.4	5	60	800	0.5	2	2.0	-2.7	1.2	225

Note 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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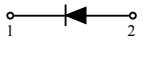
PACKAGE

2.1 SC–76/ SOD–323 Surface Mount Zener Diodes

(T_A = 25°C unless otherwise notde, V_F = 0.9V Max @ I_F= 10mA for all types)

Device	Device Marking	Zener Voltage(Note 1)				Zener Impedance			Leakage Current		ΘV_Z(mV/k)		C@V_R=0 f=1MHz
		V_Z(V)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}	I_{ZK}	I_R@V_R		@I_{ZT}		
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	Min	Max	(pF)
LM3Z5V6T1G	0C	5.2	5.6	6.0	5	40	700	0.5	1	2.0	-2.0	2.5	200
LM3Z6V2T1G	0E	5.8	6.2	6.6	5	10	100	0.5	3	4.0	0.4	3.7	185
LM3Z6V8T1G	0F	6.4	6.8	7.2	5	15	160	0.5	2	4.0	1.2	4.5	155
LM3Z7V5T1G	0G	7.0	7.5	7.9	5	15	160	0.5	1	5.0	2.5	5.3	140
LM3Z8V2T1G	0H	7.7	8.2	8.7	5	15	160	0.5	0.7	5.0	3.2	6.2	135
LM3Z9V1T1G	0K	8.5	9.1	9.6	5	15	160	0.5	0.2	7.0	3.8	7.0	130
LM3Z10VT1G	0L	9.4	10	10.6	5	20	160	0.5	0.1	8.0	4.5	8.0	130
LM3Z11VT1G	0M	10.4	11	11.6	5	20	160	0.5	0.1	8.0	5.4	9.0	130
LM3Z12VT1G	0N	11.4	12	12.7	5	25	80	0.5	0.1	8.0	6.0	10	130
LM3Z13VT1G	0P	12.4	13.25	14.1	5	30	80	0.5	0.1	8.0	7.0	11	120
LM3Z15VT1G	0T	14.3	15	15.8	5	30	400	0.5	0.05	10.5	9.2	13	110
LM3Z16VT1G	0U	15.3	16.2	17.1	5	40	400	0.5	0.05	11.2	10.4	14	105
LM3Z18VT1G	0W	16.8	18	19.1	5	45	400	0.5	0.05	12.6	12.4	16	100
LM3Z20VT1G	0Z	18.8	20	21.2	5	55	500	0.5	0.05	14.0	14.4	18	85
LM3Z22VT1G	10	20.8	22	23.3	5	55	500	0.5	0.05	15.4	16.4	20	85
LM3Z24VT1G	11	22.8	24.2	25.6	5	70	120	0.5	0.05	16.8	18.4	22	80
LM3Z27VT1G	12	25.1	27	28.9	2	80	300	0.5	0.05	18.9	21.4	25.3	70
LM3Z30VT1G	14	28.0	30	32	2	80	300	0.5	0.05	21.0	24.4	29.4	70
LM3Z33VT1G	18	31.0	33	35	2	80	300	0.5	0.05	23.2	27.4	33.4	70
LM3Z36VT1G	19	34	36	38	2	90	500	0.5	0.05	25.2	30.4	37.4	70
LM3Z39VT1G	20	37	39	41	2	130	500	0.5	0.05	27.3	33.4	41.2	45
LM3Z43VT1G	21	40	43	46	2	150	500	0.5	0.05	30.1	37.6	46.6	40
LM3Z47VT1G	1A	44	47	50	2	170	500	0.5	0.05	32.9	42.0	51.8	40
LM3Z51VT1G	1C	48	51	54	2	180	500	0.5	0.05	35.7	46.6	57.2	40
LM3Z56VT1G	1D	52	56	60	2	200	500	0.5	0.05	39.2	52.2	63.8	40
LM3Z62VT1G	1E	58	62	66	2	215	500	0.5	0.05	43.4	58.8	71.6	35
LM3Z68VT1G	1F	64	68	72	2	240	500	0.5	0.05	47.6	65.6	79.8	35
LM3Z75VT1G	1G	70	75	79	2	255	500	0.5	0.05	52.5	73.4	88.6	35

Note 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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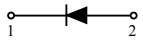
2.2 SC–76/ SOD–323 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Device	Device Marking	Zener voltage V_Z(V)			Operating resistance Z_Z(Ω)		Rising operating resistance Z_{ZK}(Ω)		Reverse curre I_R(μA)	
		Min.	Max.	I_Z(mA)	Max.	I_Z(mA)	Max.	I_Z(mA)	Max.	V_R(V)
LUDZS2.0BT1G	02	2.020	2.200	5	100	5	1000	0.5	120	0.5
LUDZS2.2BT1G	12	2.220	2.410	5	100	5	1000	0.5	120	0.7
LUDZS2.4BT1G	22	2.430	2.630	5	100	5	1000	0.5	100	1.0
LUDZS2.7BT1G	32	2.690	2.910	5	110	5	1000	0.5	100	1.0
LUDZS3.0BT1G	42	3.010	3.220	5	120	5	1000	0.5	50	1.0
LUDZS3.3BT1G	52	3.320	3.530	5	120	5	1000	0.5	20	1.0
LUDZS3.6BT1G	62	3.600	3.845	5	100	5	1000	1.0	10	1.0
LUDZS3.9BT1G	72	3.890	4.160	5	100	5	1000	1.0	5	1.0
LUDZS4.3BT1G	82	4.170	4.430	5	100	5	1000	1.0	5	1.0
LUDZS4.7BT1G	92	4.550	4.750	5	100	5	800	0.5	2	1.0
LUDZS5.1BT1G	A2	4.980	5.200	5	80	5	500	0.5	2	1.5
LUDZS5.6BT1G	C2	5.490	5.730	5	60	5	200	0.5	1	2.5
LUDZS6.2BT1G	E2	6.060	6.330	5	60	5	100	0.5	1	3.0
LUDZS6.8BT1G	F2	6.650	6.930	5	40	5	60	0.5	0.5	3.5
LUDZS7.5BT1G	H2	7.280	7.600	5	30	5	60	0.5	0.5	4.0
LUDZS8.2BT1G	J2	8.020	8.360	5	30	5	60	0.5	0.5	5.0
LUDZS9.1BT1G	L2	8.850	9.230	5	30	5	60	0.5	0.5	6.0
LUDZS10BT1G	05	9.770	10.210	5	30	5	60	0.5	0.1	7.0
LUDZS11BT1G	15	10.760	11.220	5	30	5	60	0.5	0.1	8.0
LUDZS12BT1G	25	11.740	12.240	5	30	5	80	0.5	0.1	9.0
LUDZS13BT1G	35	12.910	13.490	5	37	5	80	0.5	0.1	10.0
LUDZS15BT1G	45	14.340	14.980	5	42	5	80	0.5	0.1	11.0
LUDZS16BT1G	55	15.850	16.510	5	50	5	80	0.5	0.1	12.0
LUDZS18BT1G	65	17.560	18.350	5	65	5	80	0.5	0.1	13.0
LUDZS20BT1G	75	19.520	20.390	5	85	5	100	0.5	0.1	15.0
LUDZS22BT1G	85	21.540	22.470	5	100	5	100	0.5	0.1	17.0
LUDZS24BT1G	95	23.720	24.780	5	120	5	120	0.5	0.1	19.0
LUDZS27BT1G	A5	26.190	27.530	5	150	5	150	0.5	0.1	21.0
LUDZS30BT1G	C5	29.190	30.690	5	200	5	200	0.5	0.1	23.0
LUDZS33BT1G	E5	32.150	33.790	5	250	5	250	0.5	0.1	25.0
LUDZS36BT1G	F5	35.070	36.870	5	300	5	300	0.5	0.1	27.0

Note 1. The Zener voltage (Vz) is measured 40ms after power is supplied.

2. The operating resistances (Zz, Zzk) are measured by superimposing a minute alternating current on the regulated current (Iz).



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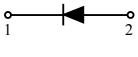
3 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Device	Device Marking	Zener Voltage Range(1)				Maximum Zener Impedance(3)			Maximum Reverse Current		Tpical Temperature Tpical Coefficent		Test Current
		V_Z @ I_{ZT} (V)			@ I_{ZT}	Z_{ZT}@Z_T	Z_{ZK}@I_{ZK}	I_{ZK}	I_R	@V_R	@I_{ZT} mV/°C		I_{ZTC}
		Nom	Min	Max	mA	Ω	Ω	mA	μA	V	Min	Max	mA
LBZT52C2V4T1G	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
LBZT52C2V7T1G	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
LBZT52C3V0T1G	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
LBZT52C3V3T1G	W3	3.3	3.1	3.5	5	95	600	1.0	5.0	1.0	-3.5	0	5
LBZT52C3V6T1G	W4	3.6	3.4	3.8	5	90	600	1.0	5.0	1.0	-3.5	0	5
LBZT52C3V9T1G	W5	3.9	3.7	4.1	5	90	600	1.0	3.0	1.0	-3.5	0	5
LBZT52C4V3T1G	W6	4.3	4.0	4.6	5	90	600	1.0	3.0	1.0	-3.5	0	5
LBZT52C4V7T1G	W7	4.7	4.4	5.0	5	80	500	1.0	3.0	2.0	-3.5	0.2	5
LBZT52C5V1T1G	W8	5.1	4.8	5.4	5	60	480	1.0	2.0	2.0	-2.7	1.2	5
LBZT52C5V6T1G	W9	5.6	5.2	6.0	5	40	400	1.0	1.0	2.0	-2.0	2.5	5
LBZT52C6V2T1G	WA	6.2	5.8	6.6	5	10	150	1.0	3.0	4.0	0.4	3.7	5
LBZT52C6V8T1G	WB	6.8	6.4	7.2	5	15	80	1.0	2.0	4.0	1.2	4.5	5
LBZT52C7V5T1G	WC	7.5	7.0	7.9	5	15	80	1.0	1.0	5.0	2.5	5.3	5
LBZT52C8V2T1G	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
LBZT52C9V1T1G	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
LBZT52C10T1G	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
LBZT52C11T1G	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
LBZT52C12T1G	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
LBZT52C13T1G	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
LBZT52C15T1G	WJ	15	13.8	15.8	5	30	200	1.0	0.1	10.5	9.2	13.0	5
LBZT52C16T1G	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
LBZT52C18T1G	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
LBZT52C20T1G	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
LBZT52C22T1G	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
LBZT52C24T1G	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5



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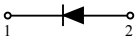
3.1 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Device	Device Marking	Zener Voltage Range(1)				Maximum Zener Impedance(3)			Maximum Reverse Current		Tpical Temperature Tpical Coefficent		Test Current
		V_Z @ I_{ZT} (V)			@ I_{ZT}	Z_{ZT}@Z_T	Z_{ZK}@I_{ZK}	I_{ZK}	I_R	@V_R	@I_{ZT} mV/°C		I_{ZTC}
		Nom	Min	Max	mA	Ω	Ω	mA	μA	V	Min	Max	mA
LBZT52C27T1G	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
LBZT52C30T1G	WQ	30	28.0	32	2	80	300	0.5	0.1	21.0	24.4	29.4	2
LBZT52C33T1G	WR	33	31.0	35	2	80	325	0.5	0.1	23.1	27.4	33.4	2
LBZT52C36T1G	WS	36	34.0	38	2	90	350	0.5	0.1	25.2	30.4	37.4	2
LBZT52C39T1G	WT	39	37.0	41	2	130	350	0.5	0.1	27.3	33.4	41.2	2
LBZT52C43T1G	WU	43	40.0	46	2	100	700	1.0	0.1	32.0	10.0	12.0	5
LBZT52C47T1G	WV	47	44.0	50	2	100	750	1.0	0.1	35.0	10.0	12.0	5
LBZT52C51T1G	WW	51	48.0	54	2	100	750	1.0	0.1	38.0	10.0	12.0	5



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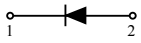
3.2 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{Z1}(V) (Notes 1 and 2)			Z_{ZT1} (Note3)	V_{Z1}(V) (Notes 1 and 2)		Z_{ZT2} (Note3)	Max Reverse Leakage Current	
		@ I_{ZT1} = 2mA				@ I_{ZT2} = 0.1mA		@I_{ZT2}=0.5mA	I_R @ V_R	
		Min	Nom	Max	Ω	Min	Max	Ω	μA	V
LMSZ2V4T1G	T1	2.28	2.4	2.52	100	1.7	2.1	600	50	1
LMSZ2V7T1G	T2	2.57	2.7	2.84	100	1.9	2.4	600	20	1
LMSZ3V0T1G*	T3	2.85	3.0	3.15	95	2.1	2.7	600	10	1
LMSZ3V3T1G	T4	3.14	3.3	3.47	95	2.3	2.9	600	5	1
LMSZ3V6T1G	T5	3.42	3.6	3.78	90	2.7	3.3	600	5	1
LMSZ3V9T1G	U1	3.71	3.9	4.10	90	2.9	3.5	600	3	1
LMSZ4V3T1G	U2	4.09	4.3	4.52	90	3.3	4.0	600	3	1
LMSZ4V7T1G	U3	4.47	4.7	4.94	80	3.7	4.7	500	3	2
LMSZ5V1T1G	U4	4.85	5.1	5.36	60	4.2	5.3	480	2	2

Note:
1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener Voltage.
2. Tolerance and Voltage Designation: Zener Voltage (V_Z) is measured with the Zener Current applied for PW = 1 ms.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$, with the AC frequency = 1 kHz.

*Not Available in the 10,000/Tape & Reel.



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3.3 SOD–123 Surface Mount Zener Diodes

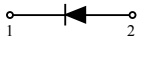
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT1} = 5mA			Z_{ZT1} (Note3)	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT2} = 1mA		Z_{ZT2} (Note3)	Max Reverse Leakage Current I_R @ V_R	
		Min	Nom	Max	Ω	Min	Max	Ω	μA	V
LMSZ5V6T1G*	U5	5.32	5.6	5.88	40	4.8	6.0	400	1	2
LMSZ6V2T1G*	V1	5.89	6.2	6.51	10	5.6	6.6	150	3	4
LMSZ6V8T1G	V2	6.46	6.8	7.14	15	6.3	7.2	80	2	4
LMSZ7V5T1G	V3	7.13	7.5	7.88	15	6.9	7.9	80	1	5
LMSZ8V2T1G	V4	7.79	8.2	8.61	15	7.6	8.7	80	0.7	5
LMSZ9V1T1G	V5	8.65	9.1	9.56	15	8.4	9.6	100	0.5	6
LMSZ10T1G	A1	9.50	10	10.50	20	9.3	10.6	150	0.2	7
LMSZ11T1G	A2	10.45	11	11.55	20	10.2	11.6	150	0.1	8
LMSZ12T1G	A3	11.40	12	12.60	25	11.2	12.7	150	0.1	8
LMSZ13T1G	A4	12.35	13	13.65	30	12.3	14.0	170	0.1	8
LMSZ15T1G	A5	14.25	15	15.75	30	13.7	15.5	200	0.05	10.5
LMSZ16T1G	X1	15.20	16	16.80	40	15.2	17.0	200	0.05	11.2
LMSZ18T1G	X2	17.10	18	18.90	45	16.7	19.0	225	0.05	12.6
LMSZ20T1G	X3	19.00	20	21.00	55	18.7	21.1	225	0.05	14
LMSZ22T1G	X4	20.90	22	23.10	55	20.7	23.2	250	0.05	15.4
LMSZ24T1G	X5	22.80	24	25.20	70	22.7	25.5	250	0.05	16.8
LMSZ27T1G	Y1	25.65	27	28.35	80	25	28.9	300	0.05	18.9
LMSZ30T1G*	Y2	28.50	30	31.50	80	27.8	32	300	0.05	21
LMSZ33T1G	Y3	31.35	33	34.65	80	30.8	35	325	0.05	23.1
LMSZ36T1G*	Y4	34.20	36	37.80	90	33.8	38	350	0.05	25.2
LMSZ39T1G*	Y5	37.05	39	40.95	130	36.7	41	350	0.05	27.3
LMSZ43T1G*	Z1	40.85	43	45.15	150	39.7	46	375	0.05	30.1
LMSZ47T1G	Z2	44.65	47	49.35	170	43.7	50	375	0.05	32.9
LMSZ51T1G*	Z3	48.45	51	53.55	180	47.6	54	400	0.05	35.7
LMSZ56T1G	Z4	53.20	56	58.80	200	51.5	60	425	0.05	39.2

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener Voltage.
2. Tolerance and Voltage Designation: Zener Voltage (V_Z) is measured with the Zener Current applied for PW = 1 ms.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$, with the AC frequency = 1 kHz.

*Not Available in the 10,000/Tape & Reel.



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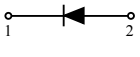
3.4 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	Zener Voltage (Notes 1) V_Z(V)			@ I_{ZT}	Leakage Current I_R @ V_R	
		Min	Nom	Max	μA	μA	V
LMSZ4684ET1G	CG3	3.13	3.3	3.47	50	7.5	1.5
LMSZ4688ET1G	CG7	4.47	4.7	4.94	50	10	3
LMSZ4689ET1G	CG8	4.85	5.1	5.36	50	10	3
LMSZ4690ET1G	CG9	5.32	5.6	5.88	50	10	4
LMSZ4691ET1G	CH1	5.89	6.2	6.51	50	10	5
LMSZ4692ET1G	CH2	6.46	6.8	7.14	50	10	5.1
LMSZ4693ET1G	CH3	7.13	7.5	7.88	50	10	5.7
LMSZ4697ET1G	CH7	9.50	10	10.50	50	1	7.6
LMSZ4699ET1G	CH9	11.40	12	12.60	50	0.05	9.1
LMSZ4701ET1G	CJ2	13.3	14	14.7	50	0.05	10.6
LMSZ4702ET1G	CJ3	14.25	15	15.75	50	0.05	11.4
LMSZ4703ET1G	CJ4	15.20	16	16.80	50	0.05	12.1
LMSZ4705ET1G	CJ6	17.10	18	18.90	50	0.05	13.6
LMSZ4709ET1G	CK1	22.80	24	25.20	50	0.01	18.2
LMSZ4711ET1G	CK3	25.65	27	28.35	50	0.01	20.4
LMSZ4717ET1G	CK9	40.85	43	45.15	50	0.01	32.6
LMSZ4678T1G	CC	1.71	1.8	1.89	50	7.5	1
LMSZ4679T1G	CD	1.90	2.0	2.10	50	5	1
LMSZ4680T1G	CE	2.09	2.2	2.31	50	4	1
LMSZ4681T1G	CF	2.28	2.4	2.52	50	2	1
LMSZ4682T1G	CH	2.565	2.7	2.835	50	1	1
LMSZ4683T1G	CJ	2.85	3.0	3.15	50	0.8	1
LMSZ4684T1G	CK	3.13	3.3	3.47	50	7.5	1.5
LMSZ4685T1G	CM	3.42	3.6	3.78	50	7.5	2
LMSZ4686T1G	CN	3.70	3.9	4.10	50	5	2
LMSZ4687T1G	CP	4.09	4.3	4.52	50	4	2
LMSZ4688T1G	CT	4.47	4.7	4.94	50	10	3
LMSZ4689T1G	CU	4.85	5.1	5.36	50	10	3

Note:
1. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_L = 30°C ±1°C.



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3.5 SOD–123 Surface Mount Zener Diodes

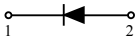
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	Zener Voltage (Notes 1) V_Z(V)			@ I_{ZT}	Leakage Current I_R @ V_R	
		Min	Nom	Max	μA	μA	V
LMSZ4690T1G	CV	5.32	5.6	5.88	50	10	4
LMSZ4691T1G	CA	5.89	6.2	6.51	50	10	5
LMSZ4692T1G	CX	6.46	6.8	7.14	50	10	5.1
LMSZ4693T1G	CY	7.13	7.5	7.88	50	10	5.7
LMSZ4694T1G	CZ	7.79	8.2	8.61	50	1	6.2
LMSZ4695T1G	DC	8.27	8.7	9.14	50	1	6.6
LMSZ4696T1G	DD	8.65	9.1	9.56	50	1	6.9
LMSZ4697T1G	DE	9.50	10	10.50	50	1	7.6
LMSZ4698T1G	DF	10.45	11	11.55	50	0.05	8.4
LMSZ4699T1G	DH	11.40	12	12.60	50	0.05	9.1
LMSZ4700T1G	DJ	12.35	13	13.65	50	0.05	9.8
LMSZ4701T1G	DK	13.30	14	14.70	50	0.05	10.6
LMSZ4702T1G	DM	14.25	15	15.75	50	0.05	11.4
LMSZ4703T1G*	DN	15.20	16	16.80	50	0.05	12.1
LMSZ4704T1G	DP	16.15	17	17.85	50	0.05	12.9
LMSZ4705T1G	DT	17.10	18	18.90	50	0.05	13.6
LMSZ4706T1G	DU	18.05	19	19.95	50	0.05	14.4
LMSZ4707T1G	DV	19.00	20	21.00	50	0.01	15.2
LMSZ4708T1G	DA	20.90	22	23.10	50	0.01	16.7
LMSZ4709T1G	DX	22.80	24	25.20	50	0.01	18.2
LMSZ4710T1G	DY	23.75	25	26.25	50	0.01	19.0
LMSZ4711T1G*	EA	25.65	27	28.35	50	0.01	20.4
LMSZ4712T1G	EC	26.60	28	29.40	50	0.01	21.2
LMSZ4713T1G	ED	28.50	30	31.50	50	0.01	22.8
LMSZ4714T1G	EE	31.35	33	34.65	50	0.01	25.0
LMSZ4715T1G	EF	34.20	36	37.80	50	0.01	27.3
LMSZ4716T1G	EH	37.05	39	40.95	50	0.01	29.6
LMSZ4717T1G	EJ	40.85	43	45.15	50	0.01	32.6

Note:

1. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_L = 30°C ±1°C.

*LMSZ4703 and LMSZ4711 Not Available in 10,000/Tape & Reel



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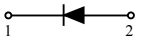
3.6 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT1} = 5mA			Z_{ZT1} (Note3)	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT2} = 1mA		Z_{ZT2} (Note3)	Max Reverse Leakage Current I_R @ V_R	
		Min	Nom	Max	Ω	Min	Max	Ω	μA	V
LMSZ2V4ET1G	CL1	2.28	2.4	2.52	100	1.7	2.1	600	50	1
LMSZ2V7ET1G	CL2	2.57	2.7	2.84	100	1.9	2.4	600	20	1
LMSZ3V0ET1G	CL3	2.85	3.0	3.15	95	2.1	2.7	600	10	1
LMSZ3V3ET1G	CL4	3.14	3.3	3.47	95	2.3	2.9	600	5	1
LMSZ3V6ET1G	CL5	3.42	3.6	3.78	90	2.7	3.3	600	5	1
LMSZ3V9ET1G	CL6	3.71	3.9	4.10	90	2.9	3.5	600	3	1
LMSZ4V3ET1G	CL7	4.09	4.3	4.52	90	3.3	4.0	600	3	1
LMSZ4V7ET1G	CL8	4.47	4.7	4.94	80	3.7	4.7	500	3	2
LMSZ5V1ET1G	CL9	4.85	5.1	5.36	60	4.2	5.3	480	2	2
LMSZ5V6ET1G	CM1	5.32	5.6	5.88	40	4.8	6.0	400	1	2
LMSZ6V2ET1G	CM2	5.89	6.2	6.51	10	5.6	6.6	150	3	4
LMSZ6V8ET1G	CM3	6.46	6.8	7.14	15	6.3	7.2	80	2	4
LMSZ7V5ET1G	CM4	7.13	7.5	7.88	15	6.9	7.9	80	1	5
LMSZ8V2ET1G	CM5	7.79	8.2	8.61	15	7.6	8.7	80	0.7	5
LMSZ9V1ET1G	CM6	8.65	9.1	9.56	15	8.4	9.6	100	0.5	6
LMSZ10ET1G	CM7	9.50	10	10.50	20	9.3	10.6	150	0.2	7
LMSZ11ET1G	CM8	10.45	11	11.55	20	10.2	11.6	150	0.1	8
LMSZ12ET1G	CM9	11.40	12	12.60	25	11.2	12.7	150	0.1	8
LMSZ13ET1G	CN1	12.35	13	13.65	30	12.3	14.0	170	0.1	8
LMSZ15ET1G	CN2	14.25	15	15.75	30	13.7	15.5	200	0.05	10.5
LMSZ16ET1G	CN3	15.20	16	16.80	40	15.2	17.0	200	0.05	11.2
LMSZ18ET1G	CN4	17.10	18	18.90	45	16.7	19.0	225	0.05	12.6
LMSZ20ET1G	CN5	19.00	20	21.00	55	18.7	21.1	225	0.05	14.0
LMSZ22ET1G	CN6	20.90	22	23.10	55	20.7	23.2	250	0.05	15.4
LMSZ24ET1G	CN7	22.80	24	25.20	70	22.7	25.5	250	0.05	16.8
LMSZ27ET1G	CN8	25.65	27	28.35	80	25	28.9	300	0.05	18.9
LMSZ30ET1G	CN9	28.50	30	31.50	80	27.8	32	300	0.05	21.0
LMSZ33ET1G	CP1	31.35	33	34.65	80	30.8	35	325	0.05	23.0

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener Voltage.
2. Tolerance and Voltage Designation: Zener Voltage (V_Z) is measured with the Zener Current applied for PW = 1 ms.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)} = 0.1\ I_{Z(DC)}$, with the AC frequency = 1 kHz.



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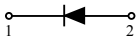
3.7 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT1} = 2mA			Z_{ZT1} (Note3)	V_{Z1}(V) (Notes 1 and 2) @ I_{ZT2} = 0.1mA		Z_{ZT2} (Note3) @I_{ZT2}=0.5mA	Max Reverse Leakage Current I_R @ V_R	
		Min	Nom	Max	Ω	Min	Max	Ω	μA	V
LMSZ36ET1G	CP2	34.20	36	37.80	90	33.8	38	350	0.05	25.2
LMSZ39ET1G	CP3	37.05	39	40.95	130	36.7	41	350	0.05	27.3
LMSZ43ET1G	CP4	40.85	43	45.15	150	39.7	46	375	0.05	30.1
LMSZ47ET1G	CP5	44.65	47	49.35	170	43.7	50	375	0.05	32.9
LMSZ51ET1G	CP6	48.45	51	53.55	180	47.6	54	400	0.05	35.7
LMSZ56ET1G	CP7	53.20	56	58.80	200	51.5	60	425	0.05	39.2

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener Voltage.
2. Tolerance and Voltage Designation: Zener Voltage (V_Z) is measured with the Zener Current applied for PW = 1 ms.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$, with the AC frequency = 1 kHz.



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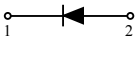
3.8 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{Z1}(V) (Notes 1 and 2)				Zener Impedance(Note3)			Leakage Current	
		V_Z(Vlots)			@I_{ZT}	Z_{ZT}@I_{ZT}		Z_{ZK}@I_{ZK}	I_R @ V_R	
		Min	Nom	Max	mA	Ω	Ω	mA	μA	V
LMSZ5221BT1G	C1	2.28	2.4	2.52	20	30	1200	0.25	100	1
LMSZ5222BT1G	C2	2.38	2.5	2.63	20	30	1250	0.25	100	1
LMSZ5223BT1G	C3	2.57	2.7	2.84	20	30	1300	0.25	75	1
LMSZ5224BT1G	C4	2.66	2.8	2.94	20	30	1400	0.25	75	1
LMSZ5225BT1G	C5	2.85	3.0	3.15	20	29	1600	0.25	50	1
LMSZ5226BT1G	D1	3.14	3.3	3.47	20	28	1600	0.25	25	1
LMSZ5227BT1G	D2	3.42	3.6	3.78	20	24	1700	0.25	15	1
LMSZ5228BT1G	D3	3.71	3.9	4.10	20	23	1900	0.25	10	1
LMSZ5229BT1G	D4	4.09	4.3	4.52	20	22	2000	0.25	5	1
LMSZ5230BT1G	D5	4.47	4.7	4.94	20	19	1900	0.25	5	2
LMSZ5231BT1G	E1	4.85	5.1	5.36	20	17	1600	0.25	5	2
LMSZ5232BT1G	E2	5.32	5.6	5.88	20	11	1600	0.25	5	3
LMSZ5233BT1G	E3	5.70	6.0	6.30	20	7	1600	0.25	5	3.5
LMSZ5234BT1G	E4	5.89	6.2	6.51	20	7	1000	0.25	5	4
LMSZ5235BT1G	E5	6.46	6.8	7.14	20	5	750	0.25	3	5
LMSZ5236BT1G	F1	7.13	7.5	7.88	20	6	500	0.25	3	6
LMSZ5237BT1G	F2	7.79	8.2	8.61	20	8	500	0.25	3	6.5
LMSZ5238BT1G	F3	8.27	8.7	9.14	20	8	600	0.25	3	6.5
LMSZ5239BT1G	F4	8.65	9.1	9.56	20	10	600	0.25	3	7
LMSZ5240BT1G	F5	9.50	10	10.50	20	17	600	0.25	3	8
LMSZ5241BT1G	H1	10.45	11	11.55	20	22	600	0.25	2	8.4
LMSZ5242BT1G	H2	11.40	12	12.60	20	30	600	0.25	1	9.1
LMSZ5243BT1G	H3	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
LMSZ5244BT1G	H4	13.30	14	14.70	9.0	15	600	0.25	0.1	10
LMSZ5245BT1G	H5	14.25	15	15.75	8.5	16	600	0.25	0.1	11
LMSZ5246BT1G	J1	15.20	16	16.80	7.8	17	600	0.25	0.1	12
LMSZ5247BT1G	J2	16.15	17	17.85	7.4	19	600	0.25	0.1	13
LMSZ5248BT1G	J3	17.10	18	18.90	7.0	21	600	0.25	0.1	14

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener voltage.
2. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_L = 30°C ±1°C.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the ac current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(dc)}$ with the AC frequency = 1KHz.



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3.9 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{ZI}(V) (Notes 1 and 2)				Zener Impedance(Note3)			Leakage Current	
		V_Z(Vlots)			@I_{ZT}	Z_{ZT}@I_{ZT}		Z_{ZK}@I_{ZK}	I_R @ V_R	
		Min	Nom	Max	mA	Ω	Ω	mA	μA	V
LMSZ5250BT1G	J5	19.00	20	21.00	6.2	25	600	0.25	0.1	15
LMSZ5251BT1G	K1	20.90	22	23.10	5.6	29	600	0.25	0.1	17
LMSZ5252BT1G	K2	22.80	24	25.20	5.2	33	600	0.25	0.1	18
LMSZ5253BT1G	K3	23.75	25	26.25	5.0	35	600	0.25	0.1	19
LMSZ5254BT1G	K4	25.65	27	28.35	4.6	41	600	0.25	0.1	21
LMSZ5255BT1G	K5	26.60	28	29.40	4.5	44	600	0.25	0.1	21
LMSZ5256BT1G	M1	28.50	30	31.50	4.2	49	600	0.25	0.1	23
LMSZ5257BT1G	M2	31.35	33	34.65	3.8	58	700	0.25	0.1	25
LMSZ5258BT1G	M3	34.20	36	37.80	3.4	70	700	0.25	0.1	27
LMSZ5259BT1G	M4	37.05	39	40.95	3.2	80	800	0.25	0.1	30
LMSZ5260BT1G	M5	40.85	43	45.15	3.0	93	900	0.25	0.1	33
LMSZ5261BT1G	N1	44.65	47	49.35	2.7	105	1000	0.25	0.1	36
LMSZ5262BT1G	N2	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
LMSZ5263BT1G	N3	53.20	56	58.80	2.2	150	1300	0.25	0.1	43
LMSZ5264BT1G	N4	57.00	60	63.00	2.1	170	1400	0.25	0.1	46
LMSZ5265BT1G	N5	58.90	62	65.10	2.0	185	1400	0.25	0.1	47
LMSZ5266BT1G	P1	64.60	68	71.40	1.8	230	1600	0.25	0.1	52
LMSZ5267BT1G	P2	71.25	75	78.75	1.7	270	1700	0.25	0.1	56
LMSZ5268BT1G	P3	77.90	82	86.10	1.5	330	2000	0.25	0.1	62
LMSZ5269BT1G	P4	82.65	87	91.35	1.4	370	2200	0.25	0.1	68
LMSZ5270BT1G	P5	86.45	91	95.55	1.4	400	2300	0.25	0.1	69
LMSZ5272BT1G	R2	104.5	110	115.5	1.1	750	3000	0.25	0.1	84

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener voltage.
2. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_L = 30°C ±1°C.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the ac current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(dc)}$ with the AC frequency = 1KHz.

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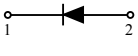
3.10 SOD–123 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA)

Device	Device Marking	V_{ZI}(V) (Notes 1 and 2)				Zener Impedance(Note3)			Leakage Current	
		V_Z(Vlots)			@I_{ZT}	Z_{ZT}@I_{ZT}		Z_{ZK}@I_{ZK}	I_R @ V_R	
		Min	Nom	Max	mA	Ω	Ω	mA	μA	V
LMSZ5221ET1G	CA1	2.28	2.4	2.52	20	30	1200	0.25	100	1
LMSZ5223ET1G	CA3	2.57	2.7	2.84	20	30	1300	0.25	75	1
LMSZ5226ET1G	CA6	3.14	3.3	3.47	20	28	1600	0.25	25	1
LMSZ5228ET1G	CA8	3.71	3.9	4.10	20	23	1900	0.25	10	1
LMSZ5229ET1G	CA9	4.09	4.3	4.52	20	22	2000	0.25	5	1
LMSZ5231ET1G	CB2	4.85	5.1	5.36	20	17	1600	0.25	5	2
LMSZ5232ET1G	CB3	5.32	5.6	5.88	20	11	1600	0.25	5	3
LMSZ5234ET1G	CB5	5.89	6.2	6.51	20	7	1000	0.25	5	4
LMSZ5235ET1G	CB6	6.46	6.8	7.14	20	5	750	0.25	3	5
LMSZ5236ET1G	CB7	7.13	7.5	7.88	20	6	500	0.25	3	6
LMSZ5237ET1G	CB8	7.79	8.2	8.61	20	8	500	0.25	3	6.5
LMSZ5240ET1G	CC2	9.50	10	10.50	20	17	600	0.25	3	8
LMSZ5242ET1G	CC4	11.40	12	12.60	20	30	600	0.25	1	9.1
LMSZ5243ET1G	CC5	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
LMSZ5244ET1G	CC6	13.30	14	14.70	9.0	15	600	0.25	0.1	10
LMSZ5245ET1G	CC7	14.25	15	15.75	8.5	16	600	0.25	0.1	11
LMSZ5246ET1G	CC8	15.20	16	16.80	7.8	17	600	0.25	0.1	12
LMSZ5248ET1G	CD1	17.10	18	18.90	7.0	21	600	0.25	0.1	14
LMSZ5250ET1G	CD3	19.00	20	21.00	6.2	25	600	0.25	0.1	15
LMSZ5252ET1G	CD5	22.80	24	25.20	5.2	33	600	0.25	0.1	18
LMSZ5253ET1G	CD6	23.75	25	26.25	5.0	35	600	0.25	0.1	19
LMSZ5254ET1G	CD7	25.65	27	28.35	4.6	41	600	0.25	0.1	21
LMSZ5255ET1G	CD8	26.60	28	29.40	4.5	44	600	0.25	0.1	21
LMSZ5256ET1G	CD9	28.50	30	31.50	4.2	49	600	0.25	0.1	23
LMSZ5257ET1G	CE1	31.35	33	34.65	3.8	58	700	0.25	0.1	25
LMSZ5258ET1G	CE2	34.20	36	37.80	3.4	70	700	0.25	0.1	27
LMSZ5259ET1G	CE3	37.05	39	40.95	3.2	80	800	0.25	0.1	30
LMSZ5262ET1G	CE6	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
LMSZ5263ET1G	CE7	53.20	56	58.80	2.2	150	1300	0.25	0.1	43

Note:

1. The type numbers shown have a standard tolerance of ±5% on the nominal Zener voltage.
2. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T_L = 30°C ±1°C.
3. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the ac current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(dc)}$ with the AC frequency = 1KHz.



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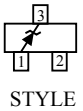
4. SOT–23/ TO–236AB Surface Mount Zener Diodes

(V_F = 0.9V Max @ I_F =10mA for all types)

Device	Device Marking	Zener Voltage (Note 1.)				Zener Impedance			Leakage Current	
		V_Z(V)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R	
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
LMBZ5223BLT1G	18C	2.56	2.7	2.84	20	30	1300	0.25	75	1
LMBZ5225BLT1G	18E	2.85	3	3.15	20	29	1600	0.25	50	1
LMBZ5226BLT1G	8A	3.13	3.3	3.47	20	28	1600	0.25	25	1
LMBZ5227BLT1G	8B	3.42	3.6	3.78	20	24	1700	0.25	15	1
LMBZ5228BLT1G	8C	3.70	3.9	4.10	20	23	1900	0.25	10	1
LMBZ5229BLT1G	8D	4.08	4.3	4.52	20	22	2000	0.25	5	1
LMBZ5230BLT1G	8E	4.46	4.7	4.94	20	19	1900	0.25	5	2
LMBZ5231BLT1G	8F	4.84	5.1	5.36	20	17	1600	0.25	5	2
LMBZ5232BLT1G	8G	5.32	5.6	5.88	20	11	1600	0.25	5	3
LMBZ5234BLT1G	8J	5.89	6.2	6.51	20	7	1000	0.25	5	4
LMBZ5235BLT1G	8K	6.46	6.8	7.14	20	5	750	0.25	3	5
LMBZ5237BLT1G	8M	7.79	8.2	8.61	20	8	500	0.25	3	6.5
LMBZ5239BLT1G	8P	8.64	9.1	9.56	20	10	600	0.25	3	7
LMBZ5240BLT1G	8Q	9.50	10	10.50	20	17	600	0.25	3	8
LMBZ5241BLT1G	8R	10.4	11	11.55	20	22	600	0.25	2	8.4
LMBZ5242BLT1G	8S	11.40	12	12.60	20	30	600	0.25	1	9.1
LMBZ5243BLT1G	8T	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
LMBZ5245BLT1G	8V	14.25	15	15.75	8.5	16	600	0.25	0.1	11
LMBZ5246BLT1G	8W	15.20	16	16.80	7.8	17	600	0.25	0.1	2
LMBZ5247BLT1G	8X	16.15	17	17.85	7.4	19	600	0.25	0.1	13
LMBZ5248BLT1G	8Y	17.10	18	18.90	7	21	600	0.25	0.1	14
LMBZ5249BLT1G	8Z	18.05	19	19.95	6.6	23	600	0.25	0.1	14
LMBZ5250BLT1G	81A	19.00	20	21.00	6.2	25	600	0.25	0.1	15
LMBZ5251BLT1G	81B	20.90	22	23.10	5.6	29	600	0.25	0.1	17
LMBZ5252BLT1G	81C	22.80	24	25.20	5.2	33	600	0.25	0.1	18
LMBZ5256BLT1G	81G	28.50	30	31.50	4.2	49	600	0.25	0.1	23

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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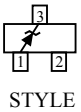
4.1 SOT–23/ TO–236AB Surface Mount Zener Diodes

(V_F = 0.9V Max @ I_F =10mA for all types)

Device	Device Marking	Zener Voltage (Note 1.)				Zener Impedance			Leakage Current	
		V_Z (V)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R	
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
LBZX84B10LT1G	Z65	9.77	–	10.21	5	30	60	0.5	0.1	7
LBZX84B11LT1G	Z66	10.76	–	11.22	5	30	60	0.5	0.1	8
LBZX84B12LT1G	Z67	11.74	–	12.24	5	30	80	0.5	0.1	9
LBZX84B13LT1G	Z68	12.91	–	13.49	5	37	80	0.5	0.1	10
LBZX84B15LT1G	Z69	14.34	–	14.98	5	42	80	0.5	0.1	11
LBZX84B16LT1G	T19	15.85	–	16.51	5	50	80	0.5	0.1	12
LBZX84B18LT1G	T20	17.56	–	18.35	5	65	80	0.5	0.1	13
LBZX84B20LT1G	Z72	19.52	–	20.39	5	85	100	0.5	0.1	15
LBZX84B22LT1G	Z73	21.54	–	22.47	5	100	100	0.5	0.1	17
LBZX84B24LT1G	Z74	23.72	–	24.78	5	120	120	0.5	0.1	19
LBZX84B27LT1G	Z75	26.19	–	27.53	5	150	150	0.5	0.1	21
LBZX84B2V4LT1G	Z50	2.43	–	2.63	5	100	1000	0.5	100	1
LBZX84B2V7LT1G	Z51	2.69	–	2.91	5	110	1000	0.5	100	1
LBZX84B30LT1G	Z76	29.19	–	30.69	5	200	200	0.5	0.1	23
LBZX84B33LT1G	Z77	32.15	–	33.79	5	250	250	0.5	0.1	25
LBZX84B36LT1G	Z78	35.07	–	36.87	5	300	300	0.5	0.1	27
LBZX84B39LT1G	Z79	38.22	–	39.78	5	130	350	1	0.1	27.3
LBZX84B3V0LT1G	Z52	3.01	–	3.22	5	120	1000	0.5	50	1
LBZX84B3V3LT1G	Z53	3.32	–	3.53	5	120	1000	0.5	20	1
LBZX84B3V6LT1G	62	3.6	–	3.845	5	100	1000	1	10	1
LBZX84B3V9LT1G	Z55	3.89	–	4.16	5	100	1000	1	5	1
LBZX84B43LT1G	Z80	42.14	–	43.86	5	150	375	1	0.1	30.1
LBZX84B47LT1G	Z81	46.6	–	47.94	5	170	375	1	0.1	32.9
LBZX84B4V3LT1G	Z56	4.17	–	4.43	5	100	1000	1	5	1
LBZX84B4V7LT1G	T10	4.55	–	4.75	5	100	800	0.5	2	1
LBZX84B51LT1G	Z82	49.98	–	51.02	5	100	750	1	0.1	38
LBZX84B5V1LT1G	T11	4.98	–	5.2	5	80	500	0.5	2	1.5

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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4.2 SOT–23/ TO–236AB Surface Mount Zener Diodes

(V_F = 0.9V Max @ I_F =10mA for all types)

Device	Device Marking	Zener Voltage (Note 1.)				Zener Impedance			Leakage Current	
		V_Z(V)			@ I_{ZT}	Z_{ZT}@ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R	
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
LBZX84B5V6LT1G	T12	5.49	–	5.73	5	60	100	0.5	1	2.5
LBZX84B6V2LT1G	T13	6.06	–	6.33	5	60	100	0.5	1	3
LBZX84B6V8LT1G	F2	6.65	–	6.93	5	40	60	0.5	0.5	3.5
LBZX84B7V5LT1G	T15	7.28	–	7.6	5	30	60	0.5	0.5	4
LBZX84B8V2LT1G	T16	8.02	–	8.36	5	30	60	0.5	0.5	6
LBZX84B9V1LT1G	T17	8.85	–	9.23	5	30	60	0.5	0.5	6
LBZX84C51LT1G	Y17	48	–	54	5	180	400	0.5	0.05	35.7
LBZX84C62LT1G	Y19	58.9	–	65.1	5	150	1000	1	0.1	51
LBZX84C75LT1G	Y21	71.25	–	78.75	5	250	1000	1	0.1	56
LMBZ5221BLT1G	18A	2.28	2.4	2.52	20	30	1200	0.25	100	1
LMBZ5222BLT1G	18B	2.37	2.5	2.63	20	30	1250	0.25	100	1
LMBZ5224BLT1G	18D	2.66	2.8	2.94	20	30	1400	0.25	75	1
LMBZ5233BLT1G	18C	2.56	2.7	2.84	20	30	1300	0.25	75	1
LMBZ5236BLT1G	8L	7.12	7.5	7.88	20	6	500	0.25	3	6
LMBZ5238BLT1G	8N	8.26	8.7	9.14	20	8	600	0.25	3	6.5
LMBZ5244BLT1G	8U	13.3	14	14.7	9	15	600	0.25	0.1	10
LMBZ5253BLT1G	81D	23.75	25	26.25	5	35	600	0.25	0.1	19
LMBZ5254BLT1G	81E	25.65	27	28.35	4.6	41	600	0.25	0.1	21
LMBZ5255BLT1G	81F	26.6	28	29.4	4.5	44	600	0.25	0.1	21
LMBZ5257BLT1G	81H	31.35	33	34.65	3.8	58	700	0.25	0.1	25
LMBZ5258BLT1G	81J	34.2	36	37.8	3.4	70	700	0.25	0.1	27
LMBZ5259BLT1G	81K	37.05	39	40.95	3.2	80	800	0.25	0.1	30
LMBZ5260BLT1G	81L	40.85	43	45.15	3	93	900	0.25	0.1	33
LMBZ5261BLT1G	81M	44.65	47	49.35	2.7	105	1000	0.25	0.1	36
LMBZ5262BLT1G	81N	48.45	51	53.55	2.5	125	1100	0.25	0.1	39
LMBZ5263BLT1G	81P	53.2	56	58.8	2.2	150	1300	0.25	0.1	43
LMBZ5264BLT1G	81Q	57	60	63	2.1	170	1400	0.25	0.1	46

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.

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4.3 SOT–23/ TO–236AB Surface Mount Zener Diodes

(V_F = 0.9V Max @ I_F =10mA for all types)

Device	Device Marking	Zener Voltage (Note 1.)				Zener Impedance			Leakage Current	
		V_Z(V)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R	
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
LMBZ5265BLT1G	81R	58.9	62	65.1	2	185	1400	0.25	0.1	47
LMBZ5266BLT1G	81S	64.6	68	71.4	1.8	230	1600	0.25	0.1	52
LMBZ5267BLT1G	81T	71.25	75	78.75	1.7	270	1700	0.25	0.1	56
LMBZ5268BLT1G	81U	77.9	82	86.1	1.5	330	2000	0.25	0.1	62
LMBZ5269BLT1G	81V	82.65	87	91.35	1.4	370	2200	0.25	0.1	68
LMBZ5270BLT1G	81W	86.45	91	95.55	1.4	400	2300	0.25	0.1	69

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.

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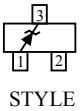
4.4 SOT–23/ TO–236AB Surface Mount Zener Diodes

(T_A=25°C unless otherwise noted, V_F=0.9V Max @ I_F=10mA)

Device	Device Marking	V_{ZI}(V) @I_{ZT1}=5mA (Note 1)			Z_{ZT1} (Ω) @I_{ZT1} =5mA	V_{Z2}(V) @I_{ZT2}=1mA (Note 1)		Z_{ZT2} (Ω) @I_{ZT2}= 0.5mA	V_{Z3} (V) @I_{ZT3} =10mA		Z_{ZT3} (Ω) @I_{ZT3} =20mA	Max Reverse Leakage Current I_R @ V_R		C_{PF} Max @V_R=0 f=1MHz
		Min	Nom	Max		Min	Max		Min	Max		(μA)	(V)	
LBZX84C2V4LT1G	Z11	2.2	2.4	2.6	100	1.7	2.1	600	2.6	3.2	50	50	1	450
LBZX84C2V7LT1G	Z12	2.5	2.7	2.9	100	1.9	2.4	600	3.0	3.6	50	20	1	450
LBZX84C3V0LT1G	Z13	2.8	3	3.2	95	2.1	2.7	600	3.3	3.9	50	10	1	450
LBZX84C3V3LT1G	Z14	3.1	3.3	3.5	95	2.3	2.9	600	3.6	4.2	40	5	1	450
LBZX84C3V6LT1G	Z15	3.4	3.6	3.8	90	2.7	3.3	600	3.9	4.5	40	5	1	450
LBZX84C3V9LT1G	Z16	3.7	3.9	4.1	90	2.9	3.5	600	4.1	4.7	30	3	1	450
LBZX84C4V3LT1G	W9	4	4.3	4.6	90	3.3	4	600	4.4	5.1	30	3	1	450
LBZX84C4V7LT1G	Z1	4.4	4.7	5	80	3.7	4.7	500	4.5	5.4	15	3	2	260
LBZX84C5V1LT1G	Z2	4.8	5.1	5.4	60	4.2	5.3	480	5.0	5.9	15	2	2	225

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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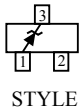
4.5 SOT–23/ TO–236AB Surface Mount Zener Diodes

(T_A=25°C unless otherwise noted, V_F=0.9V Max @ I_F=10mA)

Device	Device Marking	V_{ZI}(V) @I_{ZT1}=5mA (Note 1)			Z_{ZT1} (Ω) @I_{ZT1} =5mA	V_{Z2}(V) @I_{ZT2}=1mA (Note 1)		Z_{ZT2} (Ω) @I_{ZT2}= 0.5mA	V_{Z3} (V) @I_{ZT3} =10mA		Z_{ZT3} (Ω) @I_{ZT3} =20mA	Max Reverse Leakage Current I_R @ V_R		C_{PF} Max @V_R=0 f=1MHz
		Min	Nom	Max		Min	Max		Min	Max		(μA)	(V)	
LBZX84C5V6LT1G	Z3	5.2	5.6	6	40	4.8	6	400	5.2	6.3	10	1	2	200
LBZX84C6V2LT1G	Z4	5.8	6.2	6.6	10	5.6	6.6	150	5.8	6.8	6	3	4	185
LBZX84C6V8LT1G	Z5	6.4	6.8	7.2	15	6.3	7.2	80	6.4	7.4	6	2	4	155
LBZX84C7V5LT1G	Z6	7	7.5	7.9	15	6.9	7.9	80	7	8	6	1	5	140
LBZX84C8V2LT1G	Z7	7.7	8.2	8.7	15	7.6	8.7	80	7.7	8.8	6	0.7	5	135
LBZX84C9V1LT1G	Z8	8.5	9.1	9.6	15	8.4	9.6	100	8.5	9.7	8	0.5	6	130
LBZX84C10LT1G	Z9	9.4	10	10.6	20	9.3	10.6	150	9.4	10.7	10	0.2	7	130
LBZX84C11LT1G	Y1	10.4	11	11.6	20	10.2	11.6	150	10.4	11.8	10	0.1	8	130
LBZX84C12LT1G	Y2	11.4	12	12.7	25	11.2	12.7	150	11.4	12.9	10	0.1	8	130
LBZX84C13LT1G	Y3	12.4	13	14.1	30	12.3	14	170	12.5	14.2	15	0.1	8	120
LBZX84C15LT1G	Y4	13.8	15	15.6	30	13.7	15.5	200	13.9	15.7	20	0.05	10.5	110
LBZX84C16LT1G	Y5	15.3	16	17.1	40	15.2	17	200	15.4	17.2	20	0.05	11.2	105
LBZX84C18LT1G	Y6	16.8	18	19.1	45	16.7	19	225	16.9	19.2	20	0.05	12.6	100
LBZX84C20LT1G	Y7	18.8	20	21.2	55	18.7	21.1	225	18.9	21.4	20	0.05	14	85
LBZX84C22LT1G	Y8	20.8	22	23.3	55	20.7	23.2	250	20.9	23.4	25	0.05	15.4	85
LBZX84C24LT1G	Y9	22.8	24	25.6	70	22.7	25.5	250	22.9	25.7	25	0.05	16.8	80
LBZX84C27LT1G	Y10	25.1	27	28.9	80	25	28.9	300	25.2	29.3	45	0.05	18.9	70
LBZX84C30LT1G	Y11	28	30	32	80	27.8	32	300	28.1	32.4	50	0.05	21	70
LBZX84C33LT1G	Y12	31	33	35	80	30.8	35	325	31.1	35.4	55	0.05	23.1	70
LBZX84C36LT1G	Y13	34	36	38	90	33.8	38	350	34.1	38.4	60	0.05	25.2	70
LBZX84C39LT1G	Y14	37	39	41	130	36.7	41	350	37.1	41.5	70	0.05	27.3	45
LBZX84C43LT1G	Y15	40	43	46	150	39.7	46	375	40.1	46.5	80	0.05	30.1	40
LBZX84C47LT1G	Y16	44	47	50	170	43.7	50	375	44.1	50.5	90	0.05	32.9	40

Note: 1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.



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5. SOT–23/ TO–236AB 24 WATTS Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)
(V_F = 0.9 V Max @ I_F = 10 mA)

Device	Device Marking	V_{RWM}	I_R@ V_{RWM}	V_{BR}(Note 1) (V)			@I_T	V_C	I_{PP}	ΘV_{BR}
		Volts	μA	Min	Nom	Max	mA	V	A	mV/°C
LMBZ5V6ALT1G	5A6	3.0	5.0	5.32	5.6	5.88	20	8.0	3.0	1.26
LMBZ6V2ALT1G	6A2	3.0	0.5	5.89	6.2	6.51	1.0	8.7	2.76	2.80
LMBZ6V8ALT1G	6A8	4.5	0.5	6.46	6.8	7.14	1.0	9.6	2.5	3.4

Note: 1. V_{BR} measured at pulse test current I_T at an ambient temperature of 25°C.
2. Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$, with the AC frequency = 1.0 kHz.

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6. LL–34 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Device	V_Z@ I_{ZT}(Volts) Nominal	I_{ZT} (mA)	Z_{ZT}@ I_{ZT}(Ω) Max	I_R@ V_R(μA) Max	V_R (Volts)
ZMM2V0(B)	2.0	5	100	120	0.5
ZMM2V2(B)	2.2	5	100	120	0.7
ZMM2V4(B)	2.4	5	100	120	1
ZMM2V7(B)	2.7	5	110	100	1
ZMM3V0(B)	3.0	5	120	50	1
ZMM3V3(B)	3.3	5	120	20	1
ZMM3V6(B)	3.6	5	100	10	1
ZMM3V9(B)	3.9	5	100	5	1
ZMM4V3(B)	4.3	5	100	5	1
ZMM4V7(B)	4.7	5	80	5	1
ZMM5V1(B)	5.1	5	80	5	1.5
ZMM5V6(B)	5.6	5	60	5	2.5
ZMM6V2(B)	6.2	5	60	5	3
ZMM6V8(B)	6.8	5	20	2 3.	5
ZMM7V5(B)	7.5	5	20	0.5	4
ZMM8V2(B)	8.2	5	20	0.5	5
ZMM9V1(B)	9.1	5	25	0.5	6
ZMM10(B)	10	5	30	0.2	7
ZMM11(B)	11	5	30	0.2	8
ZMM12(B)	12	5	30	0.2	9
ZMM13(B)	13	5	35	0.2	10
ZMM15(B)	15	5	40	0.2	11
ZMM16(B)	16	5	40	0.2	12
ZMM18(B)	18	5	45	0.2	13
ZMM20(B)	20	5	45	0.2	15
ZMM22(B)	22	5	30	0.2	17

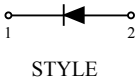
V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

Notes: 1. The type numbers listed have zener voltage min/max limits as shown and have a standard tolerance on the nominal zener voltage of 5%.

2. For detailed information on price, availability and delivery of nominal ener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.

3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

4. suffix B: ±2%



STYLE

PACKAGE

6.1 LL–34 Surface Mount Zener Diodes

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Device	V_Z@ I_{ZT}(Volts) Nominal	I_{ZT} (mA)	Z_{ZT}@ I_{ZT}(Ω) Max	I_R@ V_R(μA) Max	V_R (Volts)
ZMM24(B)	24	5	35	0.2	19
ZMM27(B)	27	5	45	0.2	21
ZMM30(B)	30	5	55	0.2	23
ZMM33(B)	33	5	65	0.2	25
ZMM36(B)	36	5	75	0.2	27
ZMM39(B)	39	5	85	0.2	30
ZMM43(B)	43	5	90	0.2	33
ZMM47(B)	47	5	90	0.2	36
ZMM51(B)	51	5	110	0.2	39
ZMM56(B)	56	5	110	0.2	43

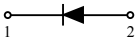
V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

Notes: 1. The type numbers listed have zener voltage min/max limits as shown and have a standard tolerance on the nominal zener voltage of 5%.

2. For detailed information on price, availability and delivery of nominal ener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.

3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

4. suffix B: ±2%

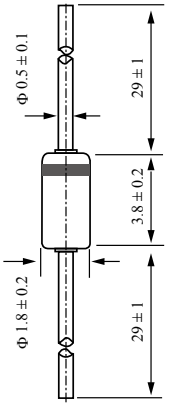


STYLE

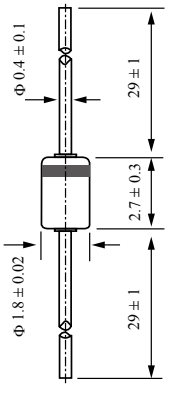
PACKAGE

7. 05W 05WS Series Glass Sealed Zener Diodes

Device	Class	Electrical Characteristics													Package Dimensions
		V_z (V)						@ I_Z mA	I_R @ V_R		R_d @ I_Z		R_Z @ I_Z		
		-1		-2		-3			(μA) (V)		(Ω) (mA)		mV/°CmA		
		Min	Max	Min	Max	Min	Max								
05W1,05WS1	C	–	–	–	–	1.5	1.7		25						
05W2,05WS2	A	1.6	1.8	1.7	1.9	1.8	2.0		25				-1.5		
	B	1.9	2.1	2.0	2.2	2.1	2.3		2						
	C	2.2	2.4	2.3	2.5	2.4	2.6		1	0.5					
05W3,05WS3	A	2.5	2.7	2.6	2.8	2.7	2.9		1		100		-2.0		
	B	2.8	3.0	2.9	3.1	3.0	3.2								
	C	3.1	3.3	3.2	3.4	3.3	3.5								
05W4,05WS4	A	3.4	3.6	3.5	3.7	3.6	3.8		5	1.0					
	B	3.7	3.9	3.8	4.0	3.9	4.1								
	C	4.0	4.2	4.1	4.3	4.2	4.4								
05W5,05WS5	A	4.3	4.5	4.4	4.6	4.5	4.7			1.5			0.4		
	B	4.6	4.8	4.7	4.9	4.8	5.0								
	C	4.9	5.1	5.0	5.2	5.1	5.3	5				5		5.0	
05W6,05WS6	A	5.2	5.5	5.3	5.6	5.4	5.7			2.0	35		3.0		
	B	5.5	5.8	5.6	5.9	5.7	6.0								
	C	5.8	6.1	6.0	6.3	6.1	6.4								
05W7,05WS7	A	6.3	6.6	6.4	6.7	6.6	6.9			3.5	15				
	B	6.7	7.0	6.9	7.2	7.0	7.3								
	C	7.2	7.6	7.3	7.7	7.5	7.9								
05W9,05WS9	A	7.7	8.1	7.9	8.3	8.1	8.5			5.0	20		5.0		
	B	8.3	8.7	8.5	8.9	8.7	9.1								
	C	8.9	9.3	9.1	9.5	9.3	9.7								
05W11, 05WS11	A	9.5	9.9	9.7	10.1	9.9	10.3			7.5	25		7.5		
	B	10.2	10.6	10.4	10.8	10.7	11.1								
	C	10.9	11.3	11.1	11.6	11.4	11.9		1						
05W12, 05WS12	A	11.6	12.1	11.9	12.4	12.2	12.7			9.5	35		8.2		
	B	12.4	12.9	12.6	13.1	12.9	13.4								
	C	13.2	13.7	13.5	14.0	13.8	14.3								



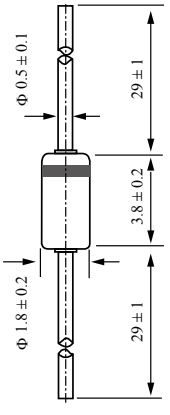
DO-35
(mm)



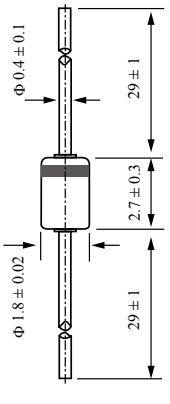
DO-34
(mm)

NOTE: 05W series is for 500mW, DO-35 package; 05WS series is for 400mW, DO-34 package.

7.1 05W 05WS Series Glass Sealed Zener Diodes

Device	Class	Electrical Characteristics													Package Dimensions
		V_z (V)						@ I_Z mA	I_R @ V_R		R_d @ I_Z		R_Z @ I_Z		
		-1		-2		-3			(μA) (V)		(Ω) (mA)		mV/°CmA		
		Min	Max	Min	Max	Min	Max								
05W15,05WS15		14.1	14.7	14.5	15.1	14.9	15.5	5	1	11	40	5	11.0	5	
05W16,05WS16		15.3	15.9	15.7	16.5	16.3	17.1			12	45		12.0		
05W18,05WS18		16.9	17.7	17.5	18.3	18.1	19.0			13	55		15.0		
05W20,05WS20		18.8	19.7	19.5	20.4	20.2	21.1	2		15	60		16.3		
05W22,05WS22		20.9	21.9	21.6	22.6	22.3	23.3			17	65	2	18.6	2	
05W24,05WS24		22.9	24	23.6	24.7	24.3	25.5			19	70		20.3		
05W27,05WS27		25.2	26.6	26.2	27.6	27.2	28.6			21	80		24.0		
05W30,05WS30		28.2	29.6	29.2	30.6	30.2	31.6			23	100		26.0		
05W33,05WS33		31.2	32.6	32.2	33.6	33.2	34.6			25	120		28.0		
05W36,05WS36		34.2	35.7	35.3	36.8	36.4	38.0			27	140		31.0		

DO-35
(mm)



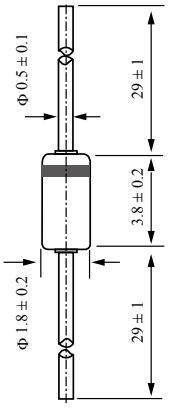
DO-34
(mm)

NOTE: 05W series is for 500mW, DO-35 package; 05WS series is for 400mW, DO-34 package.

8. 0.5W 1N52 Series Glass Sealed Zener Diodes

1N5221B Through 1N5272B ELECTRICAL CHARACTERISTICS
(T_A=25°C)unless otherwise noted. Based on dc measurements at thermal equillibrium;
lead length=3/8" ; thermal resistance of heat sink=30°C/W V_{Fmax} = 1.1 V @ I_F =200mA for all types

Device	Nominal Zener Voltage Vz@ I_{ZT} (Volts)	Test Current I_{ZT} (mA)	Max Zener Impedance A and B Sufflx only		Max Reverse Leakage Current		Max Zener Voltege Temperature Coff (A amd Bsuffix only) V_Z(% / °C)	Package Dimensions
			Z_{ZT}@I_{ZT} (Ohms)	Z_{ZK}@I_{ZK}=0.25mA (Ohms)	I_R (μA)	V_R (Volts) B		
1N5221B	2.4		30	1200	100		-0.085	
1N5222B	2.5		30	1250	100		-0.085	
1N5223B	2.7	20	30	1300	75	1.0	-0.08	
1N5224B	2.8		30	1400	75		-0.08	
1N5225B	3.0		29	1600	50		-0.075	
1N5226B	3.3		28	1600	25	1.0	-0.07	
1N5227B	3.6		24	1700	15	1.0	-0.065	
1N5228B	3.9	20	23	1900	10	1.0	-0.06	
1N5229B	4.3		22	2000	5.0	1.0	±0.055	
1N5230B	4.7		19	1900	5.0	2.0	±0.03	
1N5231B	5.1		17	1600	5.0	2.0	±0.03	
1N5232B	5.6		11	1600	5.0	3.0	+0.038	
1N5233B	6.0	20	7.0	1600	5.0	3.5	+0.038	
1N5234B	6.2		7.0	1000	5.0	4.0	+0.045	
1N5235B	6.8		5.0	750	3.0	5.0	+0.05	
1N5236B	7.5		6.0	500		6.0	+0.058	
1N5237B	8.2		8.0	500		6.5	+0.062	
1N5238B	8.7	20	8.0	600	3.0	6.5	+0.065	
1N5239B	9.1		10	600		7.0	+0.068	
1N5240B	10		17	600		8.0	+0.075	
1N5241B	11	20	22		2.0	8.4	+0.076	
1N5242B	12	20	30		1.0	9.1	+0.077	
1N5243B	13	9.5	13	600	0.5	9.9	+0.079	
1N5244B	14	9.0	15		0.1	10	+0.082	
1N5245B	15	8.5	16		0.1	11	+0.082	
1N5246B	16	7.8	17			12	+0.083	
1N5247B	17	7.4	19			13	+0.084	
1N5248B	18	7.0	21	600	0.1	14	+0.085	
1N5249B	19	6.6	23			14	+0.086	
1N5250B	20	6.2	25			15	+0.086	
1N5251B	22	5.6	29			17	+0.087	
1N5252B	24	5.2	33			18	+0.088	
1N5253B	25	5.0	35	600	0.1	19	+0.089	
1N5254B	27	4.6	41			21	+0.090	
1N5255B	28	4.5	44			21	+0.091	



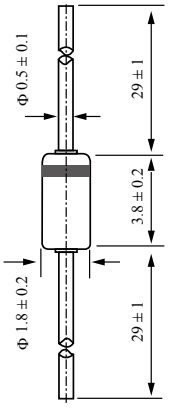
DO-35
(mm)

NOTE:The V_Z value shown is the center value with tolerance designations as follows:

suffix B: V_Z ± 5%
suffix C: V_Z ± 2%
suffix D: V_Z ± 1%

8.1 0.5W 1N52 Series Glass Sealed Zener Diodes

1N5221B Through 1N5272B ELECTRICAL CHARACTERISTICS
(T_A=25°C)unless otherwise noted. Based on dc measurements at thermal equillibrium;
lead length=3/8" ; thermal resistance of heat sink=30°C/W V_{Fmax} = 1.1 V @ I_F =200mA for all types

Device	Nominal Zener Voltage Vz@ I_{ZT} (Volts)	Test Current I_{ZT} (mA)	Max Zener Impedance A and B Sufflx only		Max Reverse Leakage Current		Max Zener Voltege Temperature Coff (A amd Bsuffix only) V_Z(% / °C)	Package Dimensions
			Z_{ZT}@I_{ZT} (Ohms)	Z_{ZK}@I_{ZK}=0.25mA (Ohms)	I_R (μA)	V_R (Volts) B		
1N5256B	30	4.2	49	600		23	+0.091	
1N5257B	33	3.8	58	700		25	+0.092	
1N5258B	36	3.4	70	700	0.1	27	+0.093	
1N5259B	39	3.2	80	800		30	+0.094	
1N5260B	43	3.0	93	900		33	+0.095	
1N5261B	47	2.7	105	1000		36	+0.095	
1N5262B	51	2.5	125	1100		39	+0.096	
1N5263B	56	2.2	150	1300	0.1	43	+0.096	
1N5264B	60	2.1	170	1400		46	+0.097	
1N5265B	62	2.0	185	1400		47	+0.097	
1N5266B	68	1.8	230	1600		52	+0.097	
1N5267B	75	1.7	270	1700		56	+0.098	
1N5268B	82	1.5	330	2000	0.1	62	+0.098	
1N5269B	87	1.4	370	2200		68	+0.099	
1N5270B	91	1.4	400	2300		69	+0.099	
1N5271B	100	1.3	500	2600		76	+0.110	
1N5272B	110	1.1	750	3000	0.1	84	+0.110	

DO-35
(mm)

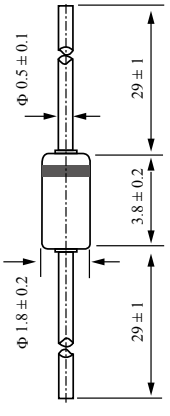
NOTE:The V_Z value shown is the center value with tolerance designations as follows:

suffix B: V_Z ± 5%
suffix C: V_Z ± 2%
suffix D: V_Z ± 1%

9. 0.5W 1N43 1N7 Series Glass Sealed Zener Diodes

ELECTRICAL CHARACTERISTICS(T_A=25°C, V_{FMAX} =1.5V @ I_F = 200mA for all types)

Device	Nominal Zener Voltage Vz@I_{ZT} (Volts)	Test Current I_{ZT} (mA)	Max Zener Impedance Z_{ZT}@ I_{ZT} (Ohms)	Maximun DC Zener Current (mA)	Max Reverse Leakage Current		Package Dimensions
					T_A=25°C I_R@V_R=1V (μA)	T_A=150°C I_R@V_R=1V (μA)	
1N4370A	2.4		30	150	100	200	
1N4371A	2.7		30	135	75	150	
1N4372A	3.0	20	29	120	50	100	
1N746A	3.3		28	110	10	30	
1N747A	3.6		24	100	10	30	
1N748A	3.9		23	95	10	30	
1N749A	4.3		22	85	2.0	30	
1N750A	4.7	20	19	75	2.0	30	
1N751A	5.1		17	70	1.0	20	
1N752A	5.6		11	65	1.0	20	
1N753A	6.2		7	60	0.1	20	
1N754A	6.8		5	55	0.1	20	
1N755A	7.5	20	6	50	0.1	20	
1N756A	8.2		8	45	0.1	20	
1N757A	9.1		10	40	0.1	20	
1N758A	10	20	17	35	0.1	20	
1N759A	12	20	30	30	0.1	20	



DO-35
(mm)

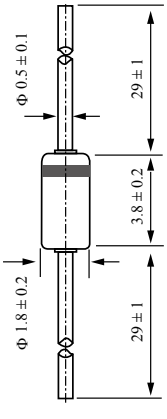
NOTE:The V_Z value shown is the center value with tolerance designations as follows:

suffix B: V_Z ± 5%
suffix C: V_Z ± 2%
suffix D: V_Z ± 1%

10. 0.5W 1N9 Series Glass Sealed Zener Diodes

(T_A=25°C, V_{FMax}=1.5V at I_F=200mA for all types)

Device	Nominal Zener Voltage $Vz@I_{ZT}$ (Volts)	Test Current I_{ZT} (mA)	Max Zener Impedance A and B Sufflx only			Max Reverse Leakage Current		Maximun DC Zener Current (mA)	Package Dimensions
			$Z_{ZT}@I_{ZT}$ (Ohms)	$Z_{ZK}@I_{ZK}$ (Ohms)	I_{ZK} (mA)	I_R (μA) $_{MAX}$	Test Voltage V_{de} V_R		
1N957B	6.8	18.5	4.5		1	150	5.2	47	
1N958B	7.5	16.5	5.5		0.5	75	5.7	42	
1N959B	8.2	15	6.5	700	0.5	50	6.2	38	
1N960B	9.1	14	7.5		0.5	25	6.9	35	
1N961B	10	12.5	8.5		0.25	10	7.6	32	
1N962B	11	11.5	9.5		0.25	5	8.4	28	
1N963B	12	10.5	11.5	700			9.1	26	
1N964B	13	9.5	13	700			9.9	24	
1N965B	15	8.5	16	700	0.25	5	11.4	21	
1N966B	16	7.8	17	700			12.2	19	
1N967B	18	7.0	21	750			13.7	17	
1N968B	20	6.2	25	750			15.2	15	
1N969B	22	5.6	29	750			16.7	14	
1N970B	24	5.2	33	750			18.2	13	
1N971B	27	4.6	41	750	0.25	5	20.6	11	
1N972B	30	4.2	49	1000			22.8	10	
1N973B	33	3.8	58	1000			25.1	9.2	
1N974B	36	3.4	70	1000			27.4	8.5	
1N975B	39	3.2	80	1000			29.7	7.8	
1N976B	43	3.0	93	1500			32.7	7.0	
1N977B	47	2.7	105	1500	0.25	5	35.8	6.4	
1N978B	51	2.5	125	1500			38.8	5.9	
1N979B	56	2.2	150	2000			42.6	5.4	
1N980B	62	2.0	185	2000			47.1	4.9	
1N981B	68	1.8	230	2000			51.7	4.5	
1N982B	75	1.7	270	2000			56.0	4.1	
1N983B	82	1.5	330	3000	0.25	5	62.2	3.7	
1N984B	91	1.4	400	3000			69.2	3.3	
1N985B	100	1.3	500	3000			76.0	3.0	
1N986B	110	1.1	750	4000			83.6	2.7	
1N987B	120	1.0	900	4500			91.2	2.5	
1N988B	130	0.95	1100	5000			98.8	2.3	
1N989B	150	0.85	1500	6000	0.25	5	114	2.0	
1N990B	160	0.8	1700	6500			121.6	1.9	
1N991B	180	0.68	2200	7100			136.8	1.7	
1N992B	200	0.65	2500	8000			152	1.5	



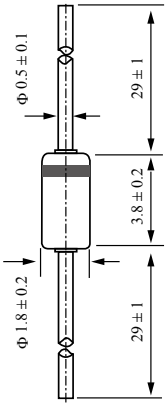
DO-35
(mm)

NOTE1.Tolerance and Voltage Designation

Tolerance Designation

The type numbers shown have tolerance designations as follows: 1N957B Senies: V_Z ± 5%, C for V_Z ± 2%

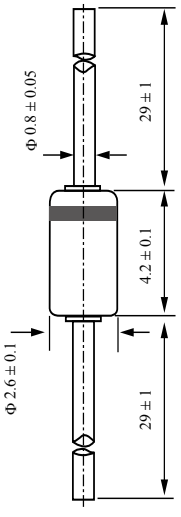
11. 0.5W MTZJ Series Glass Sealed Zener Diodes

Part No	Voltage	V_Z(V) Zener Voltage				I_Z (mA)	Z_Z		Z_{ZK}		I_R		Package Dimensions
		Thin suffix					(Ω) Max	I_Z (mA)	(Ω) Max	I_Z (mA)	(μA) Max	V_R (V)	
		A	B	C	D								
MTZJ	2.0	1.880-2.100	2.020-2.200	–	–	5	100	5	1000	0.5	120	0.5	 DO-35 (mm)
	2.2	2.120-2.300	2.220-2.410	–	–		100					0.7	
	2.4	2.330-2.520	2.430-2.630	–	–		100					1.0	
	2.7	2.540-2.750	2.690-2.910	–	–		110				100	1.0	
	3.0	2.850-3.070	3.010-3.220	–	–		120				50	1.0	
	3.3	3.160-3.380	3.320-3.530	–	–		120				20	1.0	
	3.6	3.455-3.695	3.600-3.845	–	–		100			1	10	1.0	
	3.9	3.740-4.010	3.89-4.16	–	–		100				5	1.0	
	4.3	4.04-4.29	4.17-4.43	4.30-4.57	–		100					1.0	
	4.7	4.44-4.68	4.55-4.80	4.68-4.93	–		80		900			1.0	
	5.1	4.81-5.07	4.94-5.20	5.09-5.37	–		70		1200			1.5	
	5.6	5.28-5.55	5.45-5.73	5.61-5.91	–		40		900			2.5	
	6.2	5.78-6.09	5.96-6.27	6.12-6.44	–		30		500			3	
	6.8	6.29-6.63	6.49-6.83	6.66-7.01	–		20		150		2	3.5	
	7.5	6.85-7.22	7.07-7.45	7.29-7.67	–		20		120			4	
	8.2	7.53-7.92	7.78-8.19	8.03-8.45	–		20		120		0.5	5	
	9.1	8.29-8.73	8.57-9.01	8.83-9.30	–		20		120			6	
	10	9.12-9.59	9.41-9.90	9.70-10.20	9.94-10.44		20		120			7	
	11	10.18-10.71	10.50-11.05	10.82-11.38	–		20		120			8	
	12	11.13-11.71	11.44-12.03	11.74-12.35	–		25		110			9	
	13	12.11-12.75	12.55-13.21	12.99-13.66	–		25		110	0.5	0.2	10	
	15	13.44-14.13	13.89-14.62	14.35-15.09	–		25		110			11	
	16	14.80-15.57	15.25-16.04	15.69-16.51	–		25		150			12	
	18	16.22-17.06	16.82-17.70	17.42-18.33	–		30		150			13	
	20	18.02-18.96	18.63-19.59	19.23-20.22	19.72-20.72		30		200			15	
	22	20.15-21.20	20.64-21.71	21.08-22.17	21.52-22.63		30		200			17	
	24	22.05-23.18	22.61-23.77	23.12-24.31	23.63-24.85		35		200			19	
	27	24.26-25.52	24.97-26.26	25.63-26.95	26.29-27.64		45		250			21	
	30	26.99-28.39	27.70-29.13	28.36-29.82	29.02-30.51		55		250			23	

12. 1W 1N47 Series Glass Sealed Zener Diodes

(T_A=25°C unless otherwise noted) V_{FMAX}=1.2V @ I_F=200mA for all types)

Device	Nominal Zener Voltage $Vz@I_{ZT}$ (Volts)	Test Current I_{ZT} (mA)	Max Zener Impedance A and B Sufflx only			Max Max Reverse Leakage Current		Surge Current @ T_a=25°C I_r(mA)	Package Dimensions
			$Z_{ZT}@I_{ZT}$ (Ohms)	$Z_{ZK}@I_{ZK}$ (Ohms)	$Z_{ZK}@I_{ZK}$ (mA)	I_R (μA) Max	V_R (Volts)B		
1N4728A	3.3	76	10	400		100		1380	
1N4729A	3.6	69	10	400		100		1260	
1N4730A	3.9	64	9	400	1	50	1	1190	
1N4731A	4.3	58	9	400		10		1070	
1N4732A	4.7	53	8	500		10		970	
1N4733A	5.1	49	7	550	1	10	1	890	
1N4734A	5.6	45	5	600	1		2	810	
1N4735A	6.2	41	2	700	1		3	730	
1N4736A	6.8	37	3.5	700	1	10	4	660	
1N4737A	7.5	34	4	700	0.5		5	605	
1N4738A	8.2	31	4.5		0.5		6	550	
1N4739A	9.1	28	5		0.5		7	500	
1N4740A	10	25	7	700		10	7.6	454	
1N4741A	11	23	8			5	8.4	414	
1N4742A	12	21	9		0.25	5	9.1	380	
1N4743A	13	19	10	700		5	9.9	344	
1N4744A	15	17	14	700		5	11.4	304	
1N4745A	16	15.5	16	700		5	12.2	285	
1N4746A	18	14	20	750			13.7	250	
1N4747A	20	12.5	22	750			15.2	225	
1N4748A	22	11.5	23	750	0.25	5	16.7	205	
1N4749A	24	10.5	25	750			18.2	190	
1N4750A	27	9.5	35	750			20.6	170	
1N4751A	30	8.5	40	1000			22.8	150	
1N4752A	33	7.5	45	1000			25.1	135	
1N4753A	36	7	50	1000			27.4	125	
1N4754A	39	6.5	60	1000	0.25	5	29.7	115	
1N4755A	43	6	70	1500			32.7	110	
1N4756A	47	5.5	80	1500			35.8	95	
1N4757A	51	5	95	1500			38.8	90	
1N4758A	56	4.5	110	2000			42.6	80	
1N4759A	62	4	125	2000			47.1	70	
1N4760A	68	3.7	150	2000			51.7	65	
1N4761A	75	3.3	175	2000	0.25	5	56	60	
1N4762A	82	3	200	3000			62.2	55	
1N4763A	91	2.8	250	3000			69.2	50	
1N4764A	100	2.5	350	3000			76	45	



DO-41
(mm)

V_Z tolerance: ± 5%

RECTIFIER DIODES

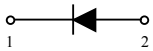
1. DO–214AC SMA Rectifiers

1.0 Ampere-General Rectifiers

Device	Marking	V_{RRM} (V)	V_F (V)	I_{AV}(A)	I_R (μA)
SN1A	N1A	50	1.1	1.0	5
SN1B	N1B	100	1.1	1.0	5
SN1D	N1D	200	1.1	1.0	5
SN1G	N1G	400	1.1	1.0	5
SN1J	N1J	600	1.1	1.0	5
SN1K	N1K	800	1.1	1.0	5
SN1M	N1M	1000	1.1	1.0	5

1.0 Ampere-Glass Passivated Rectifiers

Device	Marking	V_{RRM} (V)	I_F (A)	V_F (V)	I_R (μA)	I_{FSM}(A)	T_{rr}(ns)
FM401	M01	50	1.0	1.10	5.0	30	–
FM402	M02	100	1.0	1.10	5.0	30	–
FM403	M03	200	1.0	1.10	5.0	30	–
FM404	M04	400	1.0	1.10	5.0	30	–
FM405	M05	600	1.0	1.10	5.0	30	–
FM406	M06	800	1.0	1.10	5.0	30	–
FM407	M07	1000	1.0	1.10	5.0	30	–



STYLE

PACKAGE

1.1 DO–214AC SMA Rectifiers

1.0 Ampere-Fast Recovery Rectifiers

Device	Marking	V_{RRM}(V)	I_F(A)	V_F(V)	I_R(μA)	I_{FSM}(A)	T_{rr}(ns)
FM4933	FM3	50	1.0	1.20	5.0	30	150
FM4934	FM4	100	1.0	1.20	5.0	30	150
FM4935	FM5	200	1.0	1.20	5.0	30	150
FM4936	FM6	400	1.0	1.20	5.0	30	150
FM4937	FM7	600	1.0	1.20	5.0	30	150

Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

1.0 Ampere-Fast Recovery Rectifiers

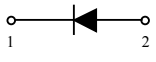
Device	Marking	V_{RRM}(V)	V_F(V)	I_{AV}(A)	I_R(μA)	T_{rr}(ns)
RS1A-D	N1A	50	1.3	1.0	5	150
RS1B-D	N1B	100	1.3	1.0	5	150
RS1D-D	N1D	200	1.3	1.0	5	150
RS1G-D	N1G	400	1.3	1.0	5	150
RS1J-D	N1J	600	1.3	1.0	5	250
RS1K-D	N1K	800	1.3	1.0	5	500
RS1M-D	N1M	1000	1.3	1.0	5	500

Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

1.0 Ampere-Fast Recovery Rectifiers

Device	Marking	V_{RRM}(V)	I_F(A)	V_F(V)	I_R(μA)	I_{FSM}(A)	T_{rr}(ns)
FFM101	FF1	50	1.0	1.30	5.0	30	150
FFM102	FF2	100	1.0	1.30	5.0	30	150
FFM103	FF3	200	1.0	1.30	5.0	30	150
FFM104	FF4	400	1.0	1.30	5.0	30	150
FFM105	FF5	600	1.0	1.30	5.0	30	150
FFM106	FF6	800	1.0	1.30	5.0	30	250
FFM107	FF7	1000	1.0	1.30	5.0	30	500

Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A



STYLE

PACKAGE

1.2 DO–214AC SMA Rectifiers

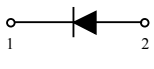
1.0 Ampere-Fast Rectifiers

Device	Marking	V_{RRM}(V)	I_F(A)	V_F(V)	I_R(μA)	I_{FSM}(A)	T_{rr}(ns)
EFM101	EF1	50	1.0	0.95	5.0	30	35
EFM102	EF2	100	1.0	0.95	5.0	30	35
EFM103	EF3	150	1.0	0.95	5.0	30	35
EFM104	EF4	200	1.0	0.95	5.0	30	35
EFM105	EF5	300	1.0	1.25	5.0	30	35
EFM106	EF6	400	1.0	1.25	5.0	30	35

1.0 Ampere-High Effidiency Rectifiers

Device	Marking	V_{RRM}(V)	I_F(A)	V_F(V)	I_R(μA)	I_{FSM}(A)	T_{rr}(ns)
HFM101	HF1	50	1.0	1.00	5.0	30	50
HFM102	HF2	100	1.0	1.00	5.0	30	50
HFM103	HF3	200	1.0	1.00	5.0	30	50
HFM104	HF4	300	1.0	1.30	5.0	30	50
HFM105	HF5	400	1.0	1.30	5.0	30	50
HFM106	HF6	600	1.0	1.85	5.0	30	70
HFM107	HF7	800	1.0	1.85	5.0	30	70
HFM108	HF8	1000	1.0	1.85	5.0	30	70

Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A



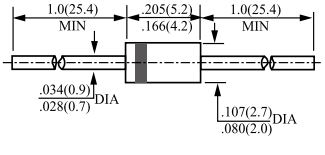
STYLE

PACKAGE

2. 1-3A Plastic-Sealed Axial High Efficiency Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
HER101	50	1.0	50	30	5.0	1.0	1.00	50	DO - 41
HER102	100	1.0	50	30	5.0	1.0	1.00	50	
HER103	200	1.0	50	30	5.0	1.0	1.00	50	
HER104	300	1.0	50	30	5.0	1.0	1.30	50	
HER105	400	1.0	50	30	5.0	1.0	1.30	50	
HER106	600	1.0	50	30	5.0	1.0	1.85	70	
HER107	800	1.0	50	30	5.0	1.0	1.85	70	
HER108	1000	1.0	50	30	5.0	1.0	1.85	70	
HER201	50	2.0	50	60	5.0	2.0	1.00	50	DO - 15
HER202	100	2.0	50	60	5.0	2.0	1.00	50	
HER203	200	2.0	50	60	5.0	2.0	1.00	50	
HER204	300	2.0	50	60	5.0	2.0	1.30	50	
HER205	400	2.0	50	60	5.0	2.0	1.30	50	
HER206	600	2.0	50	60	5.0	2.0	1.85	70	
HER207	800	2.0	50	60	5.0	2.0	1.85	70	
HER208	1000	2.0	50	60	5.0	2.0	1.85	70	
HER301	50	3.0	50	200	10	3.0	1.00	50	DO - 201AD
HER302	100	3.0	50	200	10	3.0	1.00	50	
HER303	200	3.0	50	200	10	3.0	1.00	50	
HER304	300	3.0	50	200	10	3.0	1.30	50	
HER305	400	3.0	50	150	10	3.0	1.30	50	
HER306	600	3.0	50	150	10	3.0	1.85	70	
HER307	800	3.0	50	150	10	3.0	1.85	70	
HER308	1000	3.0	50	150	10	3.0	1.85	70	

Trr Test Conditions: I_F = 0.5A , I_R =1.0A , I_{RR} =0.25A



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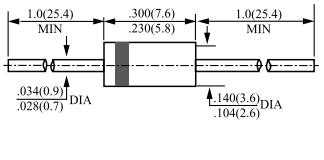

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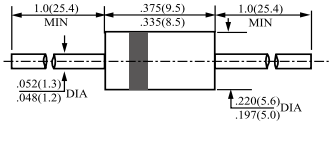
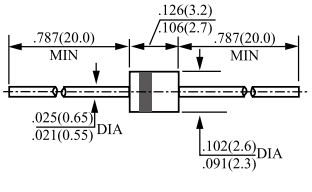


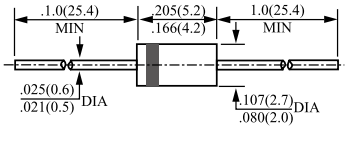
DO –201AD

3. 1A Plastic-Sealed Axial General Rectifiers

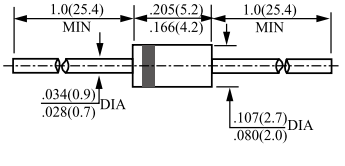
Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	
1A1	50	1.0	25	25	5.0	1.0	1.1	R – 1
1A2	100	1.0	25	25	5.0	1.0	1.1	
1A3	200	1.0	25	25	5.0	1.0	1.1	
1A4	400	1.0	25	25	5.0	1.0	1.1	
1A5	600	1.0	25	25	5.0	1.0	1.1	
1A6	800	1.0	25	25	5.0	1.0	1.1	
1A7	1000	1.0	25	25	5.0	1.0	1.1	
1N4001S	50	1.0	55	30	5.0	1.0	1.1	A – 405
1N4002S	100	1.0	55	30	5.0	1.0	1.1	
1N4003S	200	1.0	55	30	5.0	1.0	1.1	
1N4004S	400	1.0	55	30	5.0	1.0	1.1	
1N4005S	600	1.0	55	30	5.0	1.0	1.1	
1N4006S	800	1.0	55	30	5.0	1.0	1.1	
1N4007S	1000	1.0	55	30	5.0	1.0	1.1	
1N4001	50	1.0	75	30	5.0	1.0	1.1	DO – 41
1N4002	100	1.0	75	30	5.0	1.0	1.1	
1N4003	200	1.0	75	30	5.0	1.0	1.1	
1N4004	400	1.0	75	30	5.0	1.0	1.1	
1N4005	600	1.0	75	30	5.0	1.0	1.1	
1N4006	800	1.0	75	30	5.0	1.0	1.1	
1N4007	1000	1.0	75	30	5.0	1.0	1.1	



R – 1



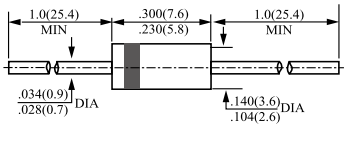
A – 405



DO – 41

4. 1.5A-3A Plastic-Sealed Axial General Rectifiers

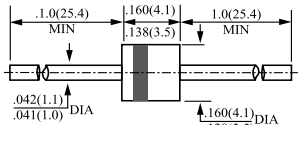
Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	
1N5391	50	1.5	70	50	5.0	1.5	1.4	DO-15
1N5392	100	1.5	70	50	5.0	1.5	1.4	
1N5393	200	1.5	70	50	5.0	1.5	1.4	
1N5394	300	1.5	70	50	5.0	1.5	1.4	
1N5395	400	1.5	70	50	5.0	1.5	1.4	
1N5396	500	1.5	70	50	5.0	1.5	1.4	
1N5397	600	1.5	70	50	5.0	1.5	1.4	
1N5398	800	1.5	70	50	5.0	1.5	1.4	
1N5399	1000	1.5	70	50	5.0	1.5	1.4	
RL151	50	1.5	75	60	5.0	1.5	1.1	
RL152	100	1.5	75	60	5.0	1.5	1.1	
RL153	200	1.5	75	60	5.0	1.5	1.1	
RL154	400	1.5	75	60	5.0	1.5	1.1	
RL155	600	1.5	75	60	5.0	1.5	1.1	
RL156	800	1.5	75	60	5.0	1.5	1.1	
RL157	1000	1.5	75	60	5.0	1.5	1.1	
RL201	50	2.0	75	70	5.0	2.0	1.1	
RL202	100	2.0	75	70	5.0	2.0	1.1	
RL203	200	2.0	75	70	5.0	2.0	1.1	
RL204	400	2.0	75	70	5.0	2.0	1.1	
RL205	600	2.0	75	70	5.0	2.0	1.1	
RL206	800	2.0	75	70	5.0	2.0	1.1	
RL207	1000	2.0	75	70	5.0	2.0	1.1	



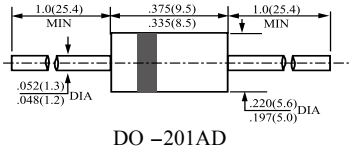
DO－15

4.1 1.5A-3A Plastic-Sealed Axial General Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	
RL251	50	2.5	75	150	5.0	2.5	1.1	R−3
RL252	100	2.5	75	150	5.0	2.5	1.1	
RL253	200	2.5	75	150	5.0	2.5	1.1	
RL254	400	2.5	75	150	5.0	2.5	1.1	
RL255	600	2.5	75	150	5.0	2.5	1.1	
RL256	800	2.5	75	150	5.0	2.5	1.1	
RL257	1000	2.5	75	150	5.0	2.5	1.1	
1N5400	50	3.0	105	200	5.0	3.0	1.1	DO−201AD
1N5401	100	3.0	105	200	5.0	3.0	1.1	
1N5402	200	3.0	105	200	5.0	3.0	1.1	
1N5404	400	3.0	105	200	5.0	3.0	1.1	
1N5406	600	3.0	105	200	5.0	3.0	1.1	
1N5407	800	3.0	105	200	5.0	3.0	1.1	
1N5408	1000	3.0	105	200	5.0	3.0	1.1	



R−3

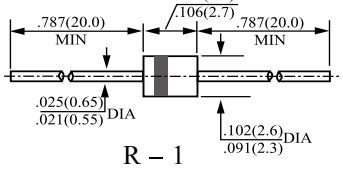


DO −201AD

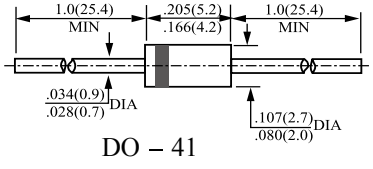
5. 1A Plastic-Sealed Axial Fast Recovery Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
1F1	50	1.0	25	25	5.0	1.0	1.3	150	R – 1
1F2	100	1.0	25	25	5.0	1.0	1.3	150	
1F3	200	1.0	25	25	5.0	1.0	1.3	150	
1F4	400	1.0	25	25	5.0	1.0	1.3	150	
1F5	600	1.0	25	25	5.0	1.0	1.3	250	
1F6	800	1.0	25	25	5.0	1.0	1.3	500	
1F7	1000	1.0	25	25	5.0	1.0	1.3	500	
FR101	50	1.0	75	30	5.0	1.0	1.3	150	DO – 41
FR102	100	1.0	75	30	5.0	1.0	1.3	150	
FR103	200	1.0	75	30	5.0	1.0	1.3	150	
FR104	400	1.0	75	30	5.0	1.0	1.3	150	
FR105	600	1.0	75	30	5.0	1.0	1.3	250	
FR105P	600	1.0	75	30	5.0	1.0	1.3	150	
FR106	800	1.0	75	30	5.0	1.0	1.3	500	
FR107	1000	1.0	75	30	5.0	1.0	1.3	500	
FR107P	1000	1.0	75	30	5.0	1.0	1.3	250	
1N4933	50	1.0	75	30	5.0	1.0	1.2	150	
1N4934	100	1.0	75	30	5.0	1.0	1.2	150	
1N4935	200	1.0	75	30	5.0	1.0	1.2	150	
1N4936	400	1.0	75	30	5.0	1.0	1.2	150	
1N4937	600	1.0	75	30	5.0	1.0	1.2	150	
1N4942	200	1.0	75	25	5.0	1.0	1.3	150	
1N4944	400	1.0	75	25	5.0	1.0	1.3	150	
1N4946	600	1.0	75	25	5.0	1.0	1.3	250	
1N4947	800	1.0	75	25	5.0	1.0	1.3	250	
1N4948	1000	1.0	75	25	5.0	1.0	1.3	500	

Trr Test Conditions: I_F = 0.5A , I_R =1.0A , I_{RR} = 0.25A



R – 1

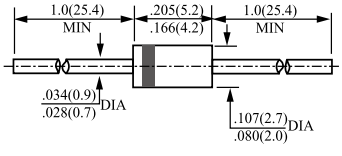


DO – 41

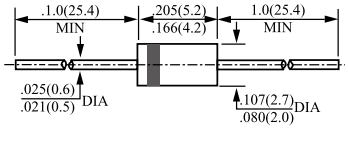
5.1 1A Plastic-Sealed Axial Fast Recovery Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
BA157	400	1.0	75	25	5.0	1.0	1.3	150	DO – 41
BA158	600	1.0	75	25	5.0	1.0	1.3	250	
BA159D	800	1.0	75	25	5.0	1.0	1.3	500	
BA159	1000	1.0	75	25	5.0	1.0	1.3	500	
1N4933S	50	1.0	75	30	5.0	1.0	1.2	200	A – 405
1N4934S	100	1.0	75	30	5.0	1.0	1.2	200	
1N4935S	200	1.0	75	30	5.0	1.0	1.2	200	
1N4936S	400	1.0	75	30	5.0	1.0	1.2	200	
1N4937S	600	1.0	75	30	5.0	1.0	1.2	200	

Trr Test Conditions: I_F = 0.5A , I_R =1.0A , I_{RR} = 0.25A



DO – 41

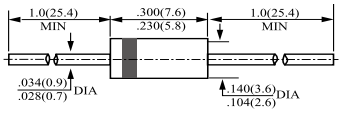


A – 405

6. 1.5A–3A Plastic-Sealed Axial Fast Recovery Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current@PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
FR151	50	1.5	75	60	5.0	1.5	1.3	150	DO– 15
FR152	100	1.5	75	60	5.0	1.5	1.3	150	
FR153	200	1.5	75	60	5.0	1.5	1.3	150	
FR154	400	1.5	75	60	5.0	1.5	1.3	150	
FR155	600	1.5	75	60	5.0	1.5	1.3	250	
FR155P	600	1.5	75	60	5.0	1.5	1.3	150	
FR156	800	1.5	75	60	5.0	1.5	1.3	500	
FR157	1000	1.5	75	60	5.0	1.5	1.3	500	
FR157P	1000	1.5	75	60	5.0	1.5	1.3	250	
FR201	50	2.0	75	70	5.0	2.0	1.3	150	
FR202	100	2.0	75	70	5.0	2.0	1.3	150	
FR203	200	2.0	75	70	5.0	2.0	1.3	150	
FR204	400	2.0	75	70	5.0	2.0	1.3	150	
FR205	600	2.0	75	70	5.0	2.0	1.3	250	
FR206	800	2.0	75	70	5.0	2.0	1.3	500	
FR207	1000	2.0	75	70	5.0	2.0	1.3	500	
FR207P	1000	2.0	75	70	5.0	2.0	1.3	250	

Trr Test Conditions: I_F=0.5A , I_R=1.0A , I_{RR}=0.25A

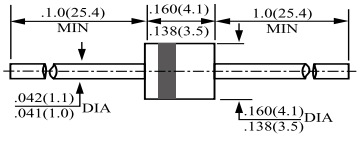


DO –15

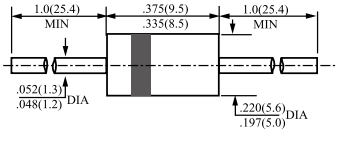
6.1 1.5A–3A Plastic-Sealed Axial Fast Recovery Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current@PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
FR251	50	2.5	75	150	5.0	2.5	1.3	150	R – 3
FR252	100	2.5	75	150	5.0	2.5	1.3	150	
FR253	200	2.5	75	150	5.0	2.5	1.3	150	
FR254	400	2.5	75	150	5.0	2.5	1.3	150	
FR255	600	2.5	75	150	5.0	2.5	1.3	250	
FR256	800	2.5	75	150	5.0	2.5	1.3	500	
FR257	1000	2.5	75	150	5.0	2.5	1.3	500	
FR257P	1000	2.5	75	150	5.0	2.5	1.3	250	
FR301	50	3.0	75	200	10	3.0	1.3	150	DO –201AD
FR302	100	3.0	75	200	10	3.0	1.3	150	
FR303	200	3.0	75	200	10	3.0	1.3	150	
FR304	400	3.0	75	200	10	3.0	1.3	150	
FR305	600	3.0	75	200	10	3.0	1.3	250	
FR306	800	3.0	75	200	10	3.0	1.3	500	
FR307	1000	3.0	75	200	10	3.0	1.3	500	
FR307P	1000	3.0	75	200	10	3.0	1.3	250	

Trr Test Conditions: I_F=0.5A , I_R=1.0A , I_{RR}=0.25A

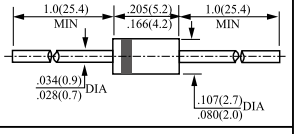
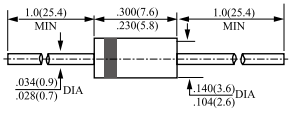
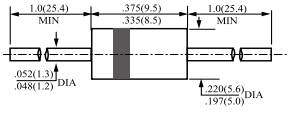


R – 3



DO –201AD

7. 1–3A Plastic-Sealed Axial Super Fast Rectifiers

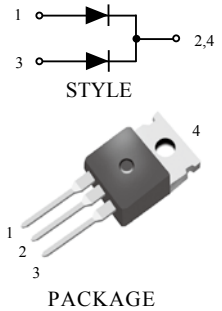
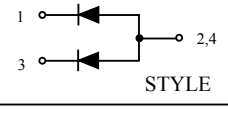
Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
SF11	50	1.0	55	30	5.0	1.0	0.95	35	DO - 41 
SF12	100	1.0	55	30	5.0	1.0	0.95	35	
SF13	150	1.0	55	30	5.0	1.0	0.95	35	
SF14	200	1.0	55	30	5.0	1.0	0.95	35	
SF15	300	1.0	55	30	5.0	1.0	1.25	35	
SF16	400	1.0	55	30	5.0	1.0	1.25	35	
SF21	50	2.0	55	75	5.0	2.0	0.95	35	DO - 15 
SF22	100	2.0	55	75	5.0	2.0	0.95	35	
SF23	150	2.0	55	75	5.0	2.0	0.95	35	
SF24	200	2.0	55	75	5.0	2.0	0.95	35	
SF25	300	2.0	55	75	5.0	2.0	1.25	35	
SF26	400	2.0	55	75	5.0	2.0	1.25	35	
SF31	50	3.0	55	125	5.0	3.0	0.95	35	DO - 201AD
SF32	100	3.0	55	125	5.0	3.0	0.95	35	
SF33	150	3.0	55	125	5.0	3.0	0.95	35	
SF34	200	3.0	55	125	5.0	3.0	0.95	35	
SF35	300	3.0	55	125	5.0	3.0	1.25	35	
SF36	400	3.0	55	125	5.0	3.0	1.25	35	
UF4001	50	1.0	55	30	5.0	1.0	1.00	50	DO - 41
UF4002	100	1.0	55	30	5.0	1.0	1.00	50	
UF4003	200	1.0	55	30	5.0	1.0	1.00	50	
UF4004	400	1.0	55	30	5.0	1.0	1.00	50	
UF4005	600	1.0	55	30	5.0	1.0	1.70	75	
UF4006	800	1.0	55	30	5.0	1.0	1.70	75	
UF4007	1000	1.0	55	150	5.0	1.0	1.70	75	
UF5400	50	3.0	55	150	5.0	3.0	1.00	50	DO - 201AD 
UF5401	100	3.0	55	150	5.0	3.0	1.00	50	
UF5402	200	3.0	55	150	5.0	3.0	1.00	50	
UF5403	300	3.0	55	150	5.0	3.0	1.30	50	
UF5404	400	3.0	55	150	5.0	3.0	1.30	50	
UF5405	500	3.0	55	150	5.0	3.0	1.70	75	
UF5406	600	3.0	55	150	5.0	3.0	1.70	75	
UF5407	800	3.0	55	150	5.0	3.0	1.70	75	
UF5408	1000	3.0	55	150	5.0	3.0	1.70	75	

Trr Test Conditions: I_F = 0.5A, I_R =1.0A, I_{RR} =0.25A

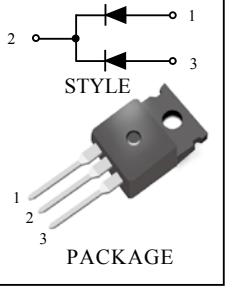
8. TO–220AC Ultrafast Rectifiers

Device	$I_{O(rec)}$ Max(A)	t_{rr} Max(ns)	V_{RRM} Min(V)	V_{FM} Max(V)	I_{FSM} Max(A)	I_R Max(mA)	Package Dimensions
BYW29-200G	8	35	200	0.85	100	0.6	
BYW80-200G	8	35	200	0.85	100	0.01	
LMUR1510G	15	35	100	1.05	200	0.01	
LMUR1515G	15	35	150	1.05	200	0.01	
LMUR1520G	15	35	200	1.05	200	0.01	
LMUR1540G	15	60	400	1.25	150	0.01	
LMUR1560G	15	60	600	1.5	150	0.01	
LMUR2020RG	20	95	200	1.1	250	0.05	
LMUR805G	8	35	50	0.975	100	0.005	
LMUR8100EG	8	75	1000	1.8	100	0.5	
LMUR810G	8	35	100	0.975	100	0.005	
LMUR815G	8	35	150	0.975	100	0.005	
LMUR820G	8	35	200	0.975	100	0.005	
LMUR840G	8	60	400	1.3	100	0.01	
LMUR860G	8	60	600	1.5	100	0.01	
LMUR880EG	8	100	800	1.8	100	0.01	

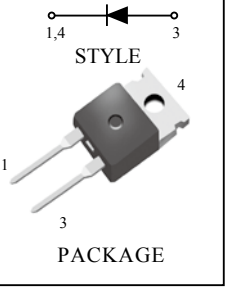
9. TO–220AB Ultrafast Rectifiers

Device	$I_{O(rec)}$ Max(A)	t_{rr} Max(ns)	V_{RRM} Min(V)	V_{FM} Max(V)	I_{FSM} Max(A)	I_R Max(mA)	Package Dimensions
BYV32-200G	16	35	200	0.85	100	0.05	
BYW51-200G	16	35	200	0.97	100	0.01	
LMUR1610CTG	16	35	100	0.975	100	0.005	
LMUR1615CTG	16	35	150	0.975	100	0.005	
LMUR1620CTG	16	35	200	0.975	100	0.005	
LMUR1640CTG	16	60	400	1.3	100	0.25	
LMUR1660CTG	16	60	600	1.5	100	0.5	
LMUR620CTG	6	35	200	0.975	75	0.005	
LMURH840CTG	8	28	400	2	100	0.5	
LMURH860CTG	8	35	600	2.8	100	0.5	
LMUR1620CTRG	16	85	200	1.2	100	0.005	

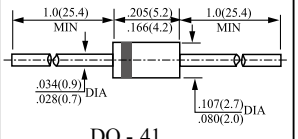
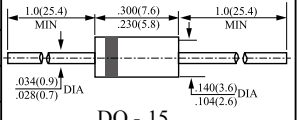
10. TO–220FP Ultrafast Rectifiers

Device	$I_{O(rec)}$ Max(A)	t_{rr} Max(ns)	V_{RRM} Min(V)	V_{FM} Max(V)	I_{FSM} Max(A)	I_R Max(mA)	Package Dimensions
LMURF1620CTG	16	25	200	0.975	100	0.005	
LMURF1660CTG	16	60	600	1.5	100	0.5	
LMURHF860CTG	8	35	600	2.8	100	0.5	

11. TO–220AC Soft Ultrafast Rectifiers

Device	$I_{O(rec)}$ Max(A)	t_{rr} Max(ns)	V_{RRM} Min(V)	V_{FM} Max(V)	I_{FSM} Max(A)	I_R Max(mA)	Package Dimensions
LMSR1560G	15	45	600	1.8	100	0.015	
LMSR860G	8	120	600	1.7	100	0.01	

12. 0.2A High Voltage Rectifiers

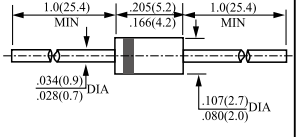
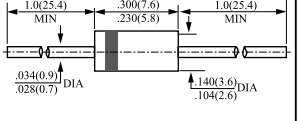
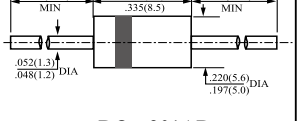
Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	
R1200	1200	0.2	50	25	5.0	0.2	2.0	 DO - 41
R1500	1500	0.2	50	25	5.0	0.2	2.0	
R1800	1800	0.2	50	25	5.0	0.2	2.0	
R2000	2000	0.2	50	25	5.0	0.2	2.0	
R3000	3000	0.2	50	15	5.0	0.2	3.0	 DO - 15
R4000	4000	0.2	50	15	5.0	0.2	5.0	
R5000	5000	0.2	50	15	5.0	0.2	5.0	

13. 0.2A High Voltage Fast Recovery Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
R2000F	2000	0.2	50	25	5.0	0.2	2.0	500	DO-41
R3000F	3000	0.2	50	15	5.0	0.2	4.0	500	DO-15
R4000F	4000	0.2	50	15	5.0	0.2	5.0	500	
R5000F	5000	0.2	50	15	5.0	0.2	5.0	500	

Trr Test Conditions: I_F = 0.5A , I_R = 1.0A , I_{RR} = 0.25A

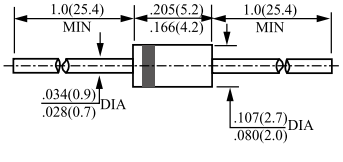
14. Plastic-Sealed Axial General Purpose GPP Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	
1N4001G	50	1.0	75	30	5.0	1.0	1.1	 DO - 41
1N4002G	100	1.0	75	30	5.0	1.0	1.1	
1N4003G	200	1.0	75	30	5.0	1.0	1.1	
1N4004G	400	1.0	75	30	5.0	1.0	1.1	
1N4005G	600	1.0	75	30	5.0	1.0	1.1	
1N4006G	800	1.0	75	30	5.0	1.0	1.1	
1N4007G	1000	1.0	75	30	5.0	1.0	1.1	
1N5391G	50	1.5	70	50	5.0	1.5	1.4	 DO - 15
1N5392G	100	1.5	70	50	5.0	1.5	1.4	
1N5393G	200	1.5	70	50	5.0	1.5	1.4	
1N5394G	300	1.5	70	50	5.0	1.5	1.4	
1N5395G	400	1.5	70	50	5.0	1.5	1.4	
1N5396G	500	1.5	70	50	5.0	1.5	1.4	
1N5397G	600	1.5	70	50	5.0	1.5	1.4	
1N5398G	800	1.5	70	50	5.0	1.5	1.4	
1N5399G	1000	1.5	70	50	5.0	1.5	1.4	
RL151G	50	1.5	75	60	5.0	1.5	1.1	
RL152G	100	1.5	75	60	5.0	1.5	1.1	
RL153G	200	1.5	75	60	5.0	1.5	1.1	
RL154G	400	1.5	75	60	5.0	1.5	1.1	
RL155G	600	1.5	75	60	5.0	1.5	1.1	
RL156G	800	1.5	75	60	5.0	1.5	1.1	
RL157G	1000	1.5	75	60	5.0	1.5	1.1	
1N5400G	50	3.0	105	200	5.0	3.0	1.1	 DO –201AD
1N5401G	100	3.0	105	200	5.0	3.0	1.1	
1N5402G	200	3.0	105	200	5.0	3.0	1.1	
1N5403G	300	3.0	105	200	5.0	3.0	1.1	
1N5404G	400	3.0	105	200	5.0	3.0	1.1	
1N5405G	500	3.0	105	200	5.0	3.0	1.1	
1N5406G	600	3.0	105	200	5.0	3.0	1.1	
1N5407G	800	3.0	105	200	5.0	3.0	1.1	
1N5408G	1000	3.0	105	200	5.0	3.0	1.1	

15. Plastic-Sealed Axial Fast GPP Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
BA157G	400	0.5	75	20	5.0	1.0	1.5	150	DO – 41
BA158G	600	0.5	75	20	5.0	1.0	1.5	250	
BA159DG	800	0.5	75	20	5.0	1.0	1.5	500	
BA159G	1000	0.5	75	20	5.0	1.0	1.5	500	
1N4933G	50	1.0	55	30	5.0	1.0	1.2	150	
1N4934G	100	1.0	55	30	5.0	1.0	1.2	150	
1N4935G	200	1.0	55	30	5.0	1.0	1.2	150	
1N4936G	400	1.0	55	30	5.0	1.0	1.2	150	
1N4937G	600	1.0	55	30	5.0	1.0	1.2	150	
1N4942G	200	1.0	75	25	5.0	1.0	1.3	150	
1N4944G	400	1.0	75	25	5.0	1.0	1.3	150	
1N4946G	600	1.0	75	25	5.0	1.0	1.3	250	
1N4947G	800	1.0	75	25	5.0	1.0	1.3	250	
1N4948G	1000	1.0	75	25	5.0	1.0	1.3	500	
FR101G	50	1.5	55	30	5.0	1.0	1.3	150	
FR102G	100	1.5	55	30	5.0	1.0	1.3	150	
FR103G	200	1.5	55	30	5.0	1.0	1.3	150	
FR104G	400	1.5	55	30	5.0	1.0	1.3	150	
FR105G	600	1.5	55	30	5.0	1.0	1.3	250	
FR106G	800	1.5	55	30	5.0	1.0	1.3	500	
FR107G	1000	1.5	55	30	5.0	1.0	1.3	500	

Trr Test Conditions: I_F = 0.5A , I_R =1.0A , I_{RR} = 0.25A

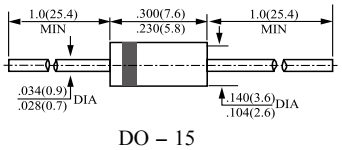


DO – 41

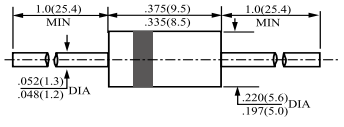
15.1 Plastic-Sealed Axial Fast GPP Rectifiers

Device	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
FR151G	50	1.5	55	60	5.0	1.5	1.3	150	DO – 15
FR152G	100	1.5	55	60	5.0	1.5	1.3	150	
FR153G	200	1.5	55	60	5.0	1.5	1.3	150	
FR154G	400	1.5	55	60	5.0	1.5	1.3	150	
FR155G	600	1.5	55	60	5.0	1.5	1.3	250	
FR156G	800	1.5	55	60	5.0	1.5	1.3	500	
FR157G	1000	1.5	55	60	5.0	1.5	1.3	500	
FR301G	50	3.0	55	125	5.0	3.0	1.3	150	DO –201AD
FR302G	100	3.0	55	125	5.0	3.0	1.3	150	
FR303G	200	3.0	55	125	5.0	3.0	1.3	150	
FR304G	400	3.0	55	125	5.0	3.0	1.3	150	
FR305G	600	3.0	55	125	5.0	3.0	1.3	250	
FR306G	800	3.0	55	125	5.0	3.0	1.3	500	
FR307G	1000	3.0	55	125	5.0	3.0	1.3	500	

Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

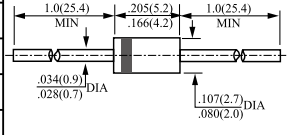
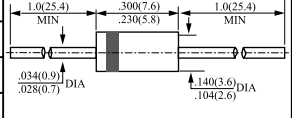
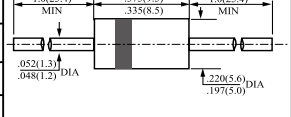


DO – 15



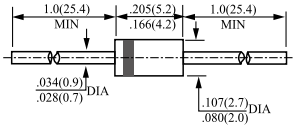
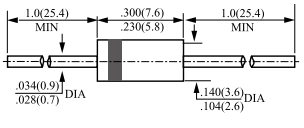
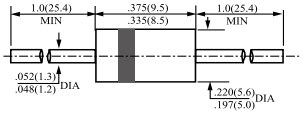
DO – 201AD

16. Plastic-Sealed Axial High Efficiency GPP Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Rectified Current @ Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current@PRV @ T_A=25°C	Maximum Forward Voltage @ T_A=25°C		Maximum Reverse Recovery Time	Package Dimensions
	PRV	I_O @ T_L		I_{FM} (Surge)	I_R	I_{FM}	V_{FM}	T_{rr}	
	V_{PK}	A_{AV}	°C	A_{PK}	μA	A_{PK}	V_{PK}	ns	
HER101G	50	1.0	50	30	5.0	1.0	1.0	50	 DO - 41
HER102G	100	1.0	50	30	5.0	1.0	1.0	50	
HER103G	200	1.0	50	30	5.0	1.0	1.0	50	
HER104G	300	1.0	50	30	5.0	1.0	1.3	50	
HER105G	400	1.0	50	30	5.0	1.0	1.3	50	
HER106G	600	1.0	50	30	5.0	1.0	1.85	70	
HER107G	800	1.0	50	30	5.0	1.0	1.85	70	
HER108G	1000	1.0	50	30	5.0	1.0	1.85	70	
HER201G	50	1.0	50	60	5.0	2.0	1.0	50	 DO - 15
HER202G	100	2.0	50	60	5.0	2.0	1.0	50	
HER203G	200	2.0	50	60	5.0	2.0	1.0	50	
HER204G	300	2.0	50	60	5.0	2.0	1.3	50	
HER205G	400	2.0	50	60	5.0	2.0	1.3	50	
HER206G	600	2.0	50	60	5.0	2.0	1.85	70	
HER207G	800	2.0	50	60	5.0	2.0	1.85	70	
HER208G	1000	2.0	50	60	5.0	2.0	1.85	70	
HER301G	50	3.0	50	200	5.0	3.0	1.0	50	 DO –201AD
HER302G	100	3.0	50	200	5.0	3.0	1.0	50	
HER303G	200	3.0	50	200	5.0	3.0	1.0	50	
HER304G	300	3.0	50	200	5.0	3.0	1.3	50	
HER305G	400	3.0	50	200	5.0	3.0	1.3	50	
HER306G	600	3.0	50	150	5.0	3.0	1.85	70	
HER307G	800	3.0	50	150	5.0	3.0	1.85	70	
HER308G	1000	3.0	50	150	5.0	3.0	1.85	70	

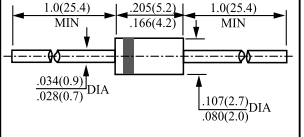
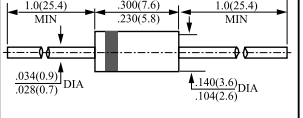
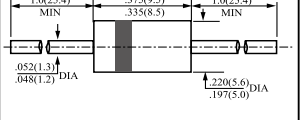
Trr Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

17. Plastic-Sealed Axial Sintered Glass Passivated Junction Fast Recovery Rectifiers

Device	V_{RRM} (V)	I_{AV} (A)	V_F (V)	I_R (μA)	I_{FSM} (A)	t_{rr} (ns)	Package Dimensions
RGP10A	50	1.0	1.3	30	30	150	 DO - 41
RGP10B	100	1.0	1.3	30	30	150	
RGP10D	200	1.0	1.3	30	30	150	
RGP10G	400	1.0	1.3	30	30	150	
RGP10JA	600	1.0	1.3	30	30	150	
RGP10J	600	1.0	1.3	30	30	250	
RGP10KA	800	1.0	1.3	30	30	300	
RGP10MA	1000	1.0	1.3	30	30	300	
RGP10K	800	1.0	1.3	30	30	500	
RGP10M	1000	1.0	1.3	30	30	500	
RGP15A	50	1.5	1.3	30	50	150	 DO - 15
RGP15B	100	1.5	1.3	30	50	150	
RGP15D	200	1.5	1.3	30	50	150	
RGP15G	400	1.5	1.3	30	50	150	
RGP15JA	600	1.5	1.3	30	50	150	
RGP15J	600	1.5	1.3	30	50	250	
RGP15KA	800	1.5	1.3	30	50	300	
RGP15MA	1000	1.5	1.3	30	50	300	
RGP15K	800	1.5	1.3	30	50	500	
RGP15M	1000	1.5	1.3	30	50	500	
RGP30A	50	3.0	1.3	50	125	150	 DO –201AD
RGP30B	100	3.0	1.3	50	125	150	
RGP30D	200	3.0	1.3	50	125	150	
RGP30G	400	3.0	1.3	50	125	150	
RGP30JA	600	3.0	1.3	50	125	150	
RGP30J	600	3.0	1.3	50	125	250	
RGP30KA	800	3.0	1.3	50	125	300	
RGP30MA	1000	3.0	1.3	50	125	300	
RGP30K	800	3.0	1.3	50	125	500	
RGP30M	1000	3.0	1.3	50	125	500	

NOTES: (1) Trr Test Conditions, I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A;
(2) I_R @ T_A = 125°C;
(3) I_{FSM} @ 8.3ms.

18. Plastic-Sealed Axial Sintered Glass Passivated Junction High Efficent Rectifiers

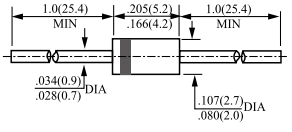
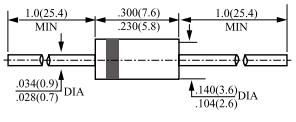
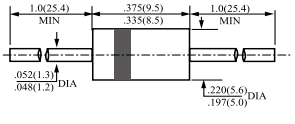
Device	V_{RRM} (V)	I_{AV} (A)	V_F (V)	I_R (μA)	I_{FSM} (A)	t_{rr} (ns)	Package Dimensions
EGP10A	50	1.0	1.0	30	30	50	 DO - 41
EGP10B	100	1.0	1.0	30	30	50	
EGP10D	200	1.0	1.0	30	30	50	
EGP10F	300	1.0	1.0	30	30	50	
EGP10G	400	1.0	1.25	30	30	50	
EGP10J	600	1.0	1.7	30	30	75	
EGP10K	800	1.0	1.7	30	30	75	
EGP10M	1000	1.0	1.7	30	30	75	
EGP15A	50	1.5	1.0	30	50	50	 DO - 15
EGP15B	100	1.5	1.0	30	50	50	
EGP15D	200	1.5	1.0	30	50	50	
EGP15F	300	1.5	1.0	30	50	50	
EGP15G	400	1.5	1.25	30	50	50	
EGP15J	600	1.5	1.7	30	50	75	
EGP15K	800	1.5	1.7	30	50	75	
EGP15M	1000	1.5	1.7	30	50	75	
EGP30A	50	3.0	1.0	50	125	50	 DO –201AD
EGP30B	100	3.0	1.0	50	125	50	
EGP30D	200	3.0	1.0	50	125	50	
EGP30F	300	3.0	1.0	50	125	50	
EGP30G	400	3.0	1.25	50	125	50	
EGP30J	600	3.0	1.7	50	125	75	
EGP30K	800	3.0	1.7	50	125	75	
EGP30M	1000	3.0	1.7	50	125	75	

NOTES: (1) Trr Test Conditions, I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A;

(2) I_R @ T_A = 125°C;

(3) I_{FSM} @ 8.3ms.

19. Plastic-Sealed Axial Sintered Glass Passivated Junction Ultrafast Efficiency Rectifiers

Device	V_{RRM} (V)	I_{AV} (A)	V_F (V)	I_R (μA)	I_{FSM} (A)	t_{rr} (ns)	Package Dimensions
UGP10A	50	1.0	0.95	30	30	35	 DO - 41
UGP10B	100	1.0	0.95	30	30	35	
UGP10D	200	1.0	0.95	30	30	35	
UGP10F	300	1.0	1.25	30	30	35	
UGP10G	400	1.0	1.25	30	30	35	
UGP10J	600	1.0	1.7	30	30	35	
UGP10K	800	1.0	2.2	30	30	35	
UGP15A	50	1.5	0.95	30	50	35	 DO - 15
UGP15B	100	1.5	0.95	30	50	35	
UGP15D	200	1.5	0.95	30	50	35	
UGP15F	300	1.5	1.25	30	50	35	
UGP15G	400	1.5	1.25	30	50	35	
UGP15J	600	1.5	1.7	30	50	35	
UGP15K	800	1.5	2.2	30	50	35	
UGP30A	50	3.0	0.95	50	125	35	 DO –201AD
UGP30B	100	3.0	0.95	50	125	35	
UGP30D	200	3.0	0.95	50	125	35	
UGP30F	300	3.0	1.25	50	125	35	
UGP30G	400	3.0	1.25	50	125	35	
UGP30J	600	3.0	1.7	50	125	35	
UGP30K	800	3.0	2.2	50	125	35	

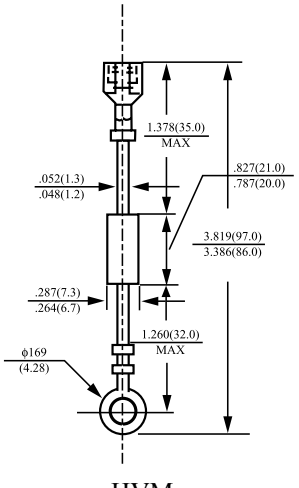
NOTES: (1) Trr Test Conditions, I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A;
(2) I_R @ T_A = 125°C;
(3) I_{FSM} @ 8.3ms.

20. Plastic-Sealed Axial High–Voltage Rectifiers

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

Device	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current @T_A=60°C	Maximum Forward Peak Surge Current @ 8.3ms	Maximum Forward Voltage drop	Maximum Reverse Leakage Current		Operating Junction Temperature	Package Dimensions
	PRV	I_O	I_{FM}(Surge)	V_F	I_R		T_J	
	V_{PK}	mA_{AV}	A_{PK}	V_{PK}	25°CT_A μADC	125°CT_A μADC	°C	
HVM5	5000	350	30	at I_F=0.35ADC 8.0	10	500	135	HVM
HVM8	8000	350	30	9.0	10	500	135	
HVM10	10000	350	30	12	10	500	135	
HVM12	12000	350	30	12	10	500	135	
HVM14	14000	350	30	14	10	500	135	
HVM15	15000	350	30	14	10	500	135	
HVM16	16000	350	30	14	10	500	135	



HVM

21. Plastic-Sealed Axial HVR Series Bi-Directional High Voltage Rectifiers For Microwave Ovens

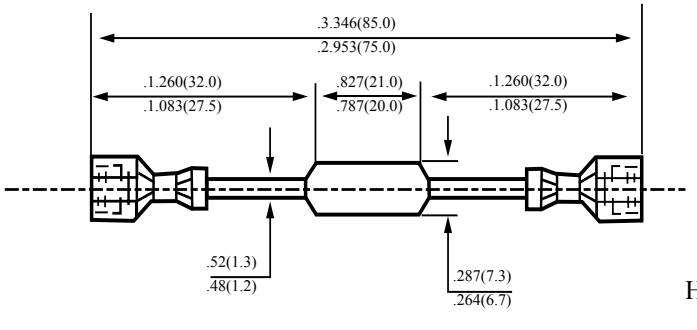
HVE−2X Series (T_A=25°C)

Description	Peak Reverse Voltage		Reverse Breakbown Voltage		Reverse Leakage Current
Symbols	V_{RM} (kV)		V_{RM} (kV)		I_{RM} (μA)
	D_1	D_2	D_1	D_2	
Conditions	I_{RM}=10μA	I_{RM}=10μA	I_{RM}=100μA	I_{RM}=100μA	$V_R = V_{RM}$
HVR-2X0620A	6.0	1.3	7.0min.	1.5-2.1	10
HVR-2X062H0A	6.0	1.5	7.0min.	1.8-2.4	10
HVR-2X062H0A(M)	6.0	1.7	7.0min.	2.1-2.8	10
HVR-2X062H1A(ML)	6.0	1.7	7.0min.	21.-2.8	10

Note: “0” no terminal, “1”with terminal; “M” or “ML” means products used in micro wave oven only.

ABSOLUTE MAX IMUM RAT1NGS:

Description	Symbols	Ratings		Units	Conditions
		D_1	D_2		
Storage Temperature	T_{STG}	-40 ~ +130		°C	
Junction Temperature	T_J	130		°C	
High Temperature Reverse Leakage Current	I_R	500		μA	T_A= 125 °C

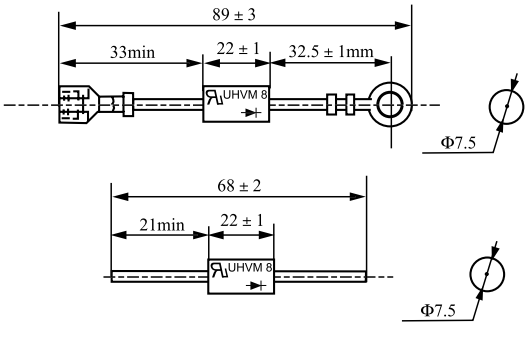


HVR

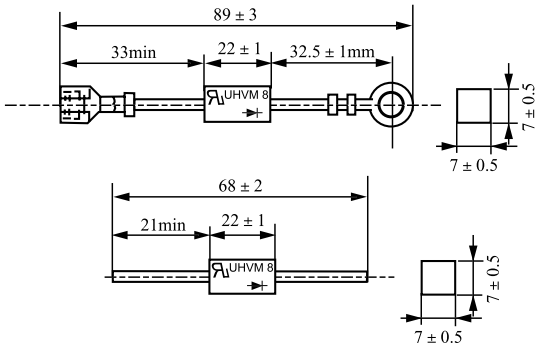
22. Plastic-Sealed Axial Ultrafast High–Voltage Rectifiers

Device	Maximum Recurrent Peak Reverse Voltage Maximum	Average Forward Rectified Current@Half-Wave Resistive Load 60Hz		Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum Reverse Current @ Ta=25°C		Maximum Forward Voltage @ Ta=25°C $I_F = I_O$	Maximum Reverse Recovery Time	Package Dimensions
	V_{RRM}	I_O @	T_A	I_{FSM}	I_R@Ta=25°C	I_R@Ta=125°C	V_F(V)	T_{RR}	
	kV	mA	°C	A	μA	μAV	ns		
UHVM6	6	0.35	60	15	500	10	13	35	HVM
UHVM7	7	0.35	60	15	500	10	13	35	
UHVM8	8	0.35	60	15	500	10	14	35	
UHVM9	9	0.35	60	15	500	10	14	35	
UHVM10	10	0.35	60	15	500	10	14	35	

NOTES: Trr Test Conditions, I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A.



HVM Figuration 1
Rotundity



HVM Figuration 2
Squareness

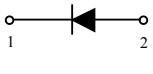
TRANSIENT VOLTAGE SUPPRESSOR

1. DO-214AC SMA Transient Voltage Suppressor (TVS)

400W SMAJ5.0-SMAJ170A

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMAJ5.0	AD	5.0	6.40	7.30	10	9.60	41.6	800
SMAJ5.0A	AE	5.0	6.40	7.00	10	9.20	43.5	800
SMAJ6.0	AF	6.0	6.67	8.15	10	11.4	35.1	800
SMAJ6.0A	AG	6.0	6.67	7.37	10	10.3	38.8	800
SMAJ6.5	AH	6.5	7.22	8.82	1.0	12.3	32.5	500
SMAJ6.5A	AK	6.5	7.22	7.98	1.0	11.2	35.7	500
SMAJ7.0	AL	7.0	7.78	9.51	1.0	13.3	30.1	200
SMAJ7.0A	AM	7.0	7.78	8.60	1.0	12.0	33.3	200
SMAJ7.5	AN	7.5	8.33	10.2	1.0	14.3	28.0	100
SMAJ7.5A	AP	7.5	8.33	9.21	1.0	12.9	31.0	100
SMAJ8.0	AQ	8.0	8.89	10.9	1.0	15.0	26.5	50.0
SMAJ8.0A	AR	8.0	8.89	9.83	1.0	13.6	29.4	50.0
SMAJ8.5	AS	8.5	9.44	11.5	1.0	15.9	25.1	10.0
SMAJ8.5A	AT	8.5	9.44	10.4	1.0	14.4	27.7	10.0
SMAJ9.0	AU	9.0	10.0	12.2	1.0	16.9	23.6	5.0
SMAJ9.0A	AV	9.0	10.0	11.1	1.0	15.4	26.0	5.0
SMAJ10	AW	10	11.1	13.6	1.0	18.8	21.2	5.0
SMAJ10A	AX	10	11.1	12.3	1.0	17.0	23.5	5.0
SMAJ11	AY	11	12.2	14.9	1.0	20.1	20.0	5.0
SMAJ11A	AZ	11	12.2	13.5	1.0	18.2	22.0	5.0

Note: Devices with suffix "A" mean its V_{BR} range of ±5%;
Devices without suffix "A" indicate its V_{BR} range of ±10%.



STYLE

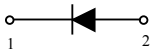
PACKAGE

1.1 DO-214AC SMA Transient Voltage Suppressor (TVS)

400W SMAJ5.0-SMAJ170A

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMAJ12	BD	12	13.3	16.3	1.0	22.0	18.1	5.0
SMAJ12A	BE	12	13.3	14.7	1.0	19.9	20.1	5.0
SMAJ13	BF	13	14.4	17.6	1.0	23.8	16.8	5.0
SMAJ13A	BG	13	14.4	15.9	1.0	21.5	18.6	5.0
SMAJ14	BH	14	15.6	19.1	1.0	25.8	15.5	5.0
SMAJ14A	BK	14	15.6	17.2	1.0	23.2	17.2	5.0
SMAJ15	BL	15	16.7	20.4	1.0	26.9	14.8	5.0
SMAJ15A	BM	15	16.7	18.5	1.0	24.4	16.4	5.0
SMAJ16	BN	16	17.8	21.8	1.0	28.8	13.8	5.0
SMAJ16A	BP	16	17.8	19.7	1.0	26.0	15.3	5.0
SMAJ17	BQ	17	18.9	23.1	1.0	30.5	13.1	5.0
SMAJ17A	BR	17	18.9	20.9	1.0	27.6	14.5	5.0
SMAJ18	BS	18	20.0	24.4	1.0	32.2	12.4	5.0
SMAJ18A	BT	18	20.0	22.1	1.0	29.2	13.7	5.0
SMAJ20	BU	20	22.2	27.1	1.0	35.8	11.1	5.0
SMAJ20A	BV	20	22.2	24.5	1.0	32.4	12.3	5.0
SMAJ22	BW	22	24.4	29.8	1.0	39.4	10.1	5.0
SMAJ22A	BX	22	24.4	26.9	1.0	35.5	11.2	5.0
SMAJ24	BY	24	26.7	32.6	1.0	43.0	9.3	5.0
SMAJ24A	BZ	24	26.7	29.5	1.0	38.9	10.3	5.0
SMAJ26	CD	26	28.9	35.3	1.0	46.6	8.6	5.0
SMAJ26A	CE	26	28.9	31.9	1.0	42.1	9.5	5.0
SMAJ28	CF	28	31.1	38.0	1.0	50.1	8.0	5.0
SMAJ28A	CG	28	31.1	34.4	1.0	45.4	8.8	5.0
SMAJ30	CH	30	33.3	40.7	1.0	53.5	7.5	5.0
SMAJ30A	CK	30	33.3	36.8	1.0	48.4	8.3	5.0

Note: Devices with suffix "A" mean its V_{BR} range of ±5%;
Devices without suffix "A" indicate its V_{BR} range of ±10%.



STYLE

PACKAGE

1.2 DO-214AC SMA Transient Voltage Suppressor (TVS)

400W SMAJ5.0-SMAJ170A

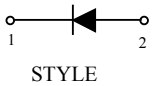
TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMAJ33	CL	33	36.7	44.9	1.0	59.0	6.8	5.0
SMAJ33A	CM	33	36.7	40.6	1.0	53.3	7.5	5.0
SMAJ36	CN	36	40.0	48.9	1.0	64.3	6.2	5.0
SMAJ36A	CP	36	40.0	44.2	1.0	58.1	6.9	5.0
SMAJ40	CQ	40	44.4	54.3	1.0	71.4	5.6	5.0
SMAJ40A	CR	40	44.4	49.1	1.0	64.5	6.2	5.0
SMAJ43	CS	43	47.8	58.4	1.0	76.7	5.2	5.0
SMAJ43A	CT	43	47.8	52.8	1.0	69.4	5.7	5.0
SMAJ45	CU	45	50.0	61.1	1.0	80.3	5.0	5.0
SMAJ45A	CV	45	50.0	55.3	1.0	72.7	5.5	5.0
SMAJ48	CW	48	53.5	65.2	1.0	85.5	4.7	5.0
SMAJ48A	CX	48	53.5	58.9	1.0	77.4	5.2	5.0
SMAJ51	CY	51	56.7	69.3	1.0	91.1	4.4	5.0
SMAJ51A	CZ	51	56.7	62.7	1.0	82.4	4.9	5.0
SMAJ54	RD	54	60.0	73.3	1.0	96.3	4.2	5.0
SMAJ54A	RE	54	60.0	66.3	1.0	87.1	4.6	5.0
SMAJ58	RF	58	64.4	78.7	1.0	103.0	3.9	5.0
SMAJ58A	RG	58	64.4	71.2	1.0	93.6	4.3	5.0
SMAJ60	RH	60	66.7	81.5	1.0	107.0	3.7	5.0
SMAJ60A	RK	60	66.7	73.7	1.0	113	4.1	5.0
SMAJ64	RL	64	71.1	86.4	1.0	114.0	3.5	5.0
SMAJ64A	RM	64	71.1	78.6	1.0	103.0	3.9	5.0
SMAJ70	RN	70	77.8	95.1	1.0	125	3.2	5.0
SMAJ70A	RP	70	77.8	86.0	1.0	113	4.1	5.0
SMAJ75	RQ	75	83.3	102	1.0	134	3.0	5.0
SMAJ75A	RR	75	83.3	92.1	1.0	121	3.3	5.0
SMAJ78	RS	78	86.7	106	1.0	139	2.9	5.0
SMAJ78A	RT	78	86.7	95.8	1.0	126	2.2	5.0
SMAJ85	RU	85	94.4	115	1.0	151	2.6	5.0
SMAJ85A	RV	85	94.4	104	1.0	137	2.9	5.0

1.3 DO-214AC SMA Transient Voltage Suppressor (TVS)

400W SMAJ5.0-SMAJ170A

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMAJ90	RW	90	100	122	1.0	160	2.5	5.0
SMAJ90A	RX	90	100	111	1.0	146	2.7	5.0
SMAJ100	RY	100	111	136	1.0	179	2.2	5.0
SMAJ100A	RZ	100	111	123	1.0	156	2.5	5.0
SMAJ110	SD	110	122	149	1.0	196	2.0	5.0
SMAJ110A	SE	110	122	135	1.0	177	2.3	5.0
SMAJ120	SF	120	133	163	1.0	214	1.9	5.0
SMAJ120A	SG	120	133	147	1.0	193	2.0	5.0
SMAJ130	SH	130	144	176	1.0	230	1.7	5.0
SMAJ130A	SK	130	144	159	1.0	209	1.9	5.0
SMAJ150	SL	150	167	204	1.0	268	1.5	5.0
SMAJ150A	SM	150	167	185	1.0	243	1.6	5.0
SMAJ160	SN	160	178	218	1.0	287	1.4	5.0
SMAJ160A	SP	160	178	197	1.0	259	1.4	5.0
SMAJ170	SQ	170	189	231	1.0	304	1.3	5.0
SMAJ170A	SR	170	189	209	1.0	275	1.4	5.0

Note: Devices with suffix "A" mean its V_{BR} range of ±5%;
Devices without suffix "A" indicate its V_{BR} range of ±10%.

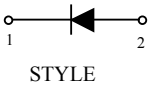


STYLE

PACKAGE

2. DO-214AA SMB Transient Voltage Suppressor (TVS)

TYPE	I_{RM} @ V_{RM} Max		V_{BR} @ I_R				V_{CL} @ I_{PP}	
			Min	Nom	Max	Note2	Max 10/1000μs	
	μA	V	V	V	V	mA	V	A
LSM6T6V8A	1000	5.8	6.45	6.8	7.14	10	10.5	57
LP3100SB	1.0	50	–	310	–	1.0	–	80



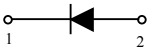
STYLE

PACKAGE

2.1 DO-214AA SMB Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@I_t	Maximun Clamping Voltage V_C(@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R(V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMBJ5.0A	KE	5.00	6.40	7.00	10.00	9.20	65.30	800.00
SMBJ5.0CA	AE	5.00	6.40	7.00	10.00	9.20	65.30	800.00
SMBJ6.0A	KG	6.00	6.67	7.73	10.00	10.30	58.30	800.00
SMBJ6.0CA	AG	6.00	6.67	7.73	10.00	10.30	58.30	800.00
SMBJ6.5A	KK	6.50	7.22	7.98	10.00	11.20	53.60	500.00
SMBJ6.5CA	AK	6.50	7.22	7.98	10.00	11.20	53.60	500.00
SMBJ7.0A	KM	7.00	7.78	8.60	10.00	12.00	50.00	200.00
SMBJ7.0CA	AM	7.00	7.78	8.60	10.00	12.00	50.00	200.00
SMBJ7.5A	KP	7.50	8.33	9.21	1.00	12.90	46.60	100.00
SMBJ7.5CA	AP	7.50	8.33	9.21	1.00	12.90	46.60	100.00
SMBJ8.0A	KR	8.00	8.89	9.83	1.00	13.60	44.20	50.00
SMBJ8.0CA	AR	8.00	8.89	9.83	1.00	13.60	44.20	50.00
SMBJ8.5A	KT	8.50	9.44	10.40	1.00	14.40	41.70	20.00
SMBJ8.5CA	AT	8.50	9.44	10.40	1.00	14.40	41.70	20.00
SMBJ9.0A	KV	9.00	10.00	11.10	1.00	15.40	39.00	10.00
SMBJ9.0CA	AV	9.00	10.00	11.10	1.00	15.40	39.00	10.00
SMBJ10A	KX	10.00	11.10	12.30	1.00	17.00	35.30	5.00
SMBJ10CA	AX	10.00	11.10	12.30	1.00	17.00	35.30	5.00
SMBJ11A	KZ	11.00	12.20	13.50	1.00	18.20	33.00	5.00
SMBJ11CA	AZ	11.00	12.20	13.50	1.00	18.20	33.00	5.00
SMBJ12A	LE	12.00	13.30	14.70	1.00	19.90	30.20	5.00
SMBJ12CA	BE	12.00	13.30	14.70	1.00	19.90	30.20	5.00
SMBJ13A	LG	13.00	14.40	15.90	1.00	21.50	28.00	5.00
SMBJ13CA	BG	13.00	14.40	15.90	1.00	21.50	28.00	5.00
SMBJ14A	LK	14.00	15.60	17.20	1.00	23.20	25.90	5.00
SMBJ14CA	BK	14.00	15.60	17.20	1.00	23.20	25.90	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



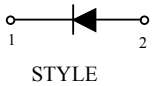
STYLE

PACKAGE

2.2 DO-214AA SMB Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@I_t	Maximun Clamping Voltage V_C(@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R(V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMBJ15A	LM	15.00	16.70	18.50	1.00	24.40	24.60	5.00
SMBJ15CA	BM	15.00	16.70	18.50	1.00	24.40	24.60	5.00
SMBJ16A	LP	16.00	17.80	19.70	1.00	26.00	23.10	5.00
SMBJ16CA	BP	16.00	17.80	19.70	1.00	26.00	23.10	5.00
SMBJ17A	LR	17.00	18.90	20.90	1.00	27.60	21.80	5.00
SMBJ17CA	BR	17.00	18.90	20.90	1.00	27.60	21.80	5.00
SMBJ18A	LT	18.00	20.00	22.10	1.00	29.20	20.60	5.00
SMBJ18CA	BT	18.00	20.00	22.10	1.00	29.20	20.60	5.00
SMBJ20A	LV	20.00	22.20	24.50	1.00	32.40	18.60	5.00
SMBJ20CA	BV	20.00	22.20	24.50	1.00	32.40	18.60	5.00
SMBJ22A	LX	22.00	24.40	26.90	1.00	35.50	16.90	5.00
SMBJ22CA	BX	22.00	24.40	26.90	1.00	35.50	16.90	5.00
SMBJ24A	LZ	24.00	26.70	29.50	1.00	38.90	15.50	5.00
SMBJ24CA	BZ	24.00	26.70	29.50	1.00	38.90	15.50	5.00
SMBJ26A	ME	26.00	28.90	31.90	1.00	42.10	14.30	5.00
SMBJ26CA	CE	26.00	28.90	31.90	1.00	42.10	14.30	5.00
SMBJ28A	MG	28.00	31.10	34.40	1.00	45.40	13.30	5.00
SMBJ28CA	CG	28.00	31.10	34.40	1.00	45.40	13.30	5.00
SMBJ30A	MK	30.00	33.30	36.80	1.00	48.40	12.40	5.00
SMBJ30CA	CK	30.00	33.30	36.80	1.00	48.40	12.40	5.00
SMBJ33A	MM	33.00	36.70	40.60	1.00	53.30	11.30	5.00
SMBJ33CA	CM	33.00	36.70	40.60	1.00	53.30	11.30	5.00
SMBJ36A	MP	36.00	40.00	44.20	1.00	58.10	10.40	5.00
SMBJ36CA	CP	36.00	40.00	44.20	1.00	58.10	10.40	5.00
SMBJ40A	MR	40.00	44.40	49.10	1.00	64.50	9.30	5.00
SMBJ40CA	CR	40.00	44.40	49.10	1.00	64.50	9.30	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



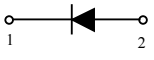
STYLE

PACKAGE

2.3 DO-214AA SMB Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMBJ43A	MT	43.00	47.80	52.80	1.00	68.40	8.70	5.00
SMBJ43CA	CT	43.00	47.80	52.80	1.00	68.40	8.70	5.00
SMBJ45A	MV	45.00	50.00	55.30	1.00	72.70	8.30	5.00
SMBJ45CA	CV	45.00	50.00	55.30	1.00	72.70	8.30	5.00
SMBJ48A	MX	48.00	53.30	58.90	1.00	77.40	7.80	5.00
SMBJ48CA	CX	48.00	53.30	58.90	1.00	77.40	7.80	5.00
SMBJ51A	MZ	51.00	56.70	62.70	1.00	82.40	7.30	5.00
SMBJ51CA	CZ	51.00	56.70	62.70	1.00	82.40	7.30	5.00
SMBJ54A	NE	54.00	60.00	66.30	1.00	87.10	6.90	5.00
SMBJ54CA	DE	54.00	60.00	66.30	1.00	87.10	6.90	5.00
SMBJ58A	NG	58.00	64.40	71.20	1.00	93.60	6.50	5.00
SMBJ58CA	DG	58.00	64.40	71.20	1.00	93.60	6.50	5.00
SMBJ60A	NK	60.00	66.70	73.70	1.00	96.80	6.20	5.00
SMBJ60CA	DK	60.00	66.70	73.70	1.00	96.80	6.20	5.00
SMBJ64A	NM	64.00	71.10	78.60	1.00	103.00	5.90	5.00
SMBJ64CA	DM	64.00	71.10	78.60	1.00	103.00	5.90	5.00
SMBJ70A	NP	70.00	77.80	86.00	1.00	113.00	5.30	5.00
SMBJ70CA	DP	70.00	77.80	86.00	1.00	113.00	5.30	5.00
SMBJ75A	NR	75.00	83.30	92.10	1.00	121.00	5.00	5.00
SMBJ75CA	DR	75.00	83.30	92.10	1.00	121.00	5.00	5.00
SMBJ78A	NT	78.00	86.70	95.80	1.00	126.00	4.80	5.00
SMBJ78CA	DT	78.00	86.70	95.80	1.00	126.00	4.80	5.00
SMBJ85A	NV	85.00	94.40	104.00	1.00	137.00	4.40	5.00
SMBJ85CA	DV	85.00	94.40	104.00	1.00	137.00	4.40	5.00
SMBJ90A	NX	90.00	100.00	111.00	1.00	146.00	4.10	5.00
SMBJ90CA	DX	90.00	100.00	111.00	1.00	146.00	4.10	5.00
SMBJ100A	NZ	100.00	111.00	123.00	1.00	162.00	3.70	5.00
SMBJ100CA	DZ	100.00	111.00	123.00	1.00	162.00	3.70	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



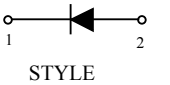
STYLE

PACKAGE

2.4 DO-214AA SMB Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMBJ110A	PE	110.00	122.00	135.00	1.00	177.00	3.40	5.00
SMBJ110CA	EE	110.00	122.00	135.00	1.00	177.00	3.40	5.00
SMBJ120A	PG	120.00	133.00	147.00	1.00	193.00	3.10	5.00
SMBJ120CA	EG	120.00	133.00	147.00	1.00	193.00	3.10	5.00
SMBJ130A	PK	130.00	144.00	159.00	1.00	209.00	2.90	5.00
SMBJ130CA	EK	130.00	144.00	159.00	1.00	209.00	2.90	5.00
SMBJ150A	PM	150.00	167.00	185.00	1.00	243.00	2.50	5.00
SMBJ150CA	EM	150.00	167.00	185.00	1.00	243.00	2.50	5.00
SMBJ160A	PP	160.00	178.00	197.00	1.00	259.00	2.30	5.00
SMBJ160CA	EP	160.00	178.00	197.00	1.00	259.00	2.30	5.00
SMBJ170A	PR	170.00	189.00	209.00	1.00	275.00	2.20	5.00
SMBJ170CA	ER	170.00	189.00	209.00	1.00	275.00	2.20	5.00
SMBJ180A	PT	180.00	201.00	222.00	1.00	292.00	2.10	5.00
SMBJ180CA	ET	180.00	201.00	222.00	1.00	292.00	2.10	5.00
SMBJ200A	PV	200.00	224.00	247.00	1.00	324.00	1.90	5.00
SMBJ200CA	EV	200.00	224.00	247.00	1.00	324.00	1.90	5.00
SMBJ220A	PX	220.00	246.00	272.00	1.00	356.00	1.70	5.00
SMBJ220CA	EX	220.00	246.00	272.00	1.00	356.00	1.70	5.00
SMBJ250A	PZ	250.00	279.00	309.00	1.00	405.00	1.50	5.00
SMBJ250CA	EZ	250.00	279.00	309.00	1.00	405.00	1.50	5.00
SMBJ300A	QE	300.00	335.00	371.00	1.00	486.00	1.30	5.00
SMBJ300CA	FE	300.00	335.00	371.00	1.00	486.00	1.30	5.00
SMBJ350A	QG	350.00	391.00	432.00	1.00	567.00	1.10	5.00
SMBJ350CA	FG	350.00	391.00	432.00	1.00	567.00	1.10	5.00
SMBJ400A	QK	400.00	447.00	494.00	1.00	648.00	0.90	5.00
SMBJ400CA	FK	400.00	447.00	494.00	1.00	648.00	0.90	5.00
SMBJ440A	QM	440.00	492.00	543.00	1.00	713.00	0.90	5.00
SMBJ440CA	FM	440.00	492.00	543.00	1.00	713.00	0.90	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



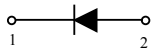
STYLE

PACKAGE

3. DO-214AB SMC Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMCJ5.0A	GDE	5.00	6.40	7.00	10.00	9.20	163.00	800.00
SMCJ5.0CA	BDE	5.00	6.40	7.00	10.00	9.20	163.00	800.00
SMCJ6.0A	GDG	6.00	6.67	7.73	10.00	10.30	145.70	800.00
SMCJ6.0CA	BDG	6.00	6.67	7.73	10.00	10.30	145.70	800.00
SMCJ6.5A	GDK	6.50	7.22	7.98	10.00	11.20	134.00	500.00
SMCJ6.5CA	BDK	6.50	7.22	7.98	10.00	11.20	134.00	500.00
SMCJ7.0A	GDM	7.00	7.78	8.60	10.00	12.00	125.00	200.00
SMCJ7.0CA	BDM	7.00	7.78	8.60	10.00	12.00	125.00	200.00
SMCJ7.5A	GDP	7.50	8.33	9.21	1.00	12.90	116.30	100.00
SMCJ7.5CA	BDP	7.50	8.33	9.21	1.00	12.90	116.30	100.00
SMCJ8.0A	GDR	8.00	8.89	9.83	1.00	13.60	110.30	50.00
SMCJ8.0CA	BDR	8.00	8.89	9.83	1.00	13.60	110.30	50.00
SMCJ8.5A	GDT	8.50	9.44	10.40	1.00	14.40	104.20	20.00
SMCJ8.5CA	BDT	8.50	9.44	10.40	1.00	14.40	104.20	20.00
SMCJ9.0A	GDV	9.00	10.00	11.10	1.00	15.40	97.40	10.00
SMCJ9.0CA	BDV	9.00	10.00	11.10	1.00	15.40	97.40	10.00
SMCJ10A	GDX	10.00	11.10	12.30	1.00	17.00	88.30	5.00
SMCJ10CA	BDX	10.00	11.10	12.30	1.00	17.00	88.30	5.00
SMCJ11A	GDZ	11.00	12.20	13.50	1.00	18.20	82.50	5.00
SMCJ11CA	BDZ	11.00	12.20	13.50	1.00	18.20	82.50	5.00
SMCJ12A	GEE	12.00	13.30	14.70	1.00	19.90	75.40	5.00
SMCJ12CA	BEE	12.00	13.30	14.70	1.00	19.90	75.40	5.00
SMCJ13A	GEG	13.00	14.40	15.90	1.00	21.50	69.80	5.00
SMCJ13CA	BEG	13.00	14.40	15.90	1.00	21.50	69.80	5.00
SMCJ14A	GEK	14.00	15.60	17.20	1.00	23.20	64.70	5.00
SMCJ14CA	BEK	14.00	15.60	17.20	1.00	23.20	64.70	5.00
SMCJ15A	GEM	15.00	16.70	18.50	1.00	24.40	61.50	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



STYLE

PACKAGE

3.1 DO-214AB SMC Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMCJ15CA	BEM	15.00	16.70	18.50	1.00	24.40	61.50	5.00
SMCJ16A	GEP	16.00	17.80	19.70	1.00	26.00	57.70	5.00
SMCJ16CA	BEP	16.00	17.80	19.70	1.00	26.00	57.70	5.00
SMCJ17A	GER	17.00	18.90	20.90	1.00	27.60	54.40	5.00
SMCJ17CA	BER	17.00	18.90	20.90	1.00	27.60	54.40	5.00
SMCJ18A	GET	18.00	20.00	22.10	1.00	29.20	51.40	5.00
SMCJ18CA	BET	18.00	20.00	22.10	1.00	29.20	51.40	5.00
SMCJ20A	GEV	20.00	22.20	24.50	1.00	32.40	46.30	5.00
SMCJ20CA	BEV	20.00	22.20	24.50	1.00	32.40	46.30	5.00
SMCJ22A	GEX	22.00	24.40	26.90	1.00	35.50	42.30	5.00
SMCJ22CA	BEX	22.00	24.40	26.90	1.00	35.50	42.30	5.00
SMCJ24A	GEZ	24.00	26.70	29.50	1.00	38.90	38.60	5.00
SMCJ24CA	BEZ	24.00	26.70	29.50	1.00	38.90	38.60	5.00
SMCJ26A	GFE	26.00	28.90	31.90	1.00	42.10	35.70	5.00
SMCJ26CA	BFE	26.00	28.90	31.90	1.00	42.10	35.70	5.00
SMCJ28A	GFG	28.00	31.10	34.40	1.00	45.40	33.10	5.00
SMCJ28CA	BFG	28.00	31.10	34.40	1.00	45.40	33.10	5.00
SMCJ30A	GFK	30.00	33.30	36.80	1.00	48.40	31.00	5.00
SMCJ30CA	BFK	30.00	33.30	36.80	1.00	48.40	31.00	5.00
SMCJ33A	GFM	33.00	36.70	40.60	1.00	53.30	28.20	5.00
SMCJ33CA	BFM	33.00	36.70	40.60	1.00	53.30	28.20	5.00
SMCJ36A	GFP	36.00	40.00	44.20	1.00	58.10	25.90	5.00
SMCJ36CA	BFP	36.00	40.00	44.20	1.00	58.10	25.90	5.00
SMCJ40A	GFR	40.00	44.40	49.10	1.00	64.50	23.30	5.00
SMCJ40CA	BFR	40.00	44.40	49.10	1.00	64.50	23.30	5.00
SMCJ43A	GFT	43.00	47.80	52.80	1.00	68.40	21.70	5.00
SMCJ43CA	BFT	43.00	47.80	52.80	1.00	68.40	21.70	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.

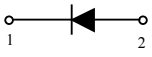
STYLE

PACKAGE

3.2 DO-214AB SMC Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@ I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMCJ45A	GFV	45.00	50.00	55.30	1.00	72.70	20.60	5.00
SMCJ45CA	BFV	45.00	50.00	55.30	1.00	72.70	20.60	5.00
SMCJ48A	GFX	48.00	53.30	58.90	1.00	77.40	19.40	5.00
SMCJ48CA	BFX	48.00	53.30	58.90	1.00	77.40	19.40	5.00
SMCJ51A	GFZ	51.00	56.70	62.70	1.00	82.40	18.20	5.00
SMCJ51CA	BFZ	51.00	56.70	62.70	1.00	82.40	18.20	5.00
SMCJ54A	GGE	54.00	60.00	66.30	1.00	87.10	17.30	5.00
SMCJ54CA	BGE	54.00	60.00	66.30	1.00	87.10	17.30	5.00
SMCJ58A	GGG	58.00	64.40	71.20	1.00	93.60	16.10	5.00
SMCJ58CA	BGG	58.00	64.40	71.20	1.00	93.60	16.10	5.00
SMCJ60A	GGK	60.00	66.70	73.70	1.00	96.80	15.50	5.00
SMCJ60CA	BGK	60.00	66.70	73.70	1.00	96.80	15.50	5.00
SMCJ64A	GGM	64.00	71.10	78.60	1.00	103.00	14.60	5.00
SMCJ64CA	BGM	64.00	71.10	78.60	1.00	103.00	14.60	5.00
SMCJ70A	GGP	70.00	77.80	86.00	1.00	113.00	13.30	5.00
SMCJ70CA	BGP	70.00	77.80	86.00	1.00	113.00	13.30	5.00
SMCJ75A	GGR	75.00	83.30	92.10	1.00	121.00	12.40	5.00
SMCJ75CA	BGR	75.00	83.30	92.10	1.00	121.00	12.40	5.00
SMCJ78A	GGT	78.00	86.70	95.80	1.00	126.00	11.90	5.00
SMCJ78CA	BGT	78.00	86.70	95.80	1.00	126.00	11.90	5.00
SMCJ85A	GGV	85.00	94.40	104.00	1.00	137.00	11.00	5.00
SMCJ85CA	BGV	85.00	94.40	104.00	1.00	137.00	11.00	5.00
SMCJ90A	GGX	90.00	100.00	111.00	1.00	146.00	10.30	5.00
SMCJ90CA	BGX	90.00	100.00	111.00	1.00	146.00	10.30	5.00
SMCJ100A	GGZ	100.00	111.00	123.00	1.00	162.00	9.30	5.00
SMCJ100CA	BGZ	100.00	111.00	123.00	1.00	162.00	9.30	5.00
SMCJ110A	GHE	110.00	122.00	135.00	1.00	177.00	8.50	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



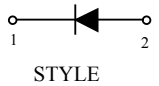
STYLE

PACKAGE

3.3 DO-214AB SMC Transient Voltage Suppressor(TVS)

TYPE	Marking	Working Peak Reverse Voltage Vwm	Breakdown Voltage V_{BR}		@I_t	Maximun Clamping Voltage V_C (@I_{PPM})	Maximum Peak Impulse Surge Current I_{PPM}	Maximum Reverse Leakage I_R (V_{WM})
		(V)	(V)		(mA)	(V)	(A)	(μA)
			Min	Max				
SMCJ110CA	BHE	110.00	122.00	135.00	1.00	177.00	8.50	5.00
SMCJ120A	GHG	120.00	133.00	147.00	1.00	193.00	7.80	5.00
SMCJ120CA	BHG	120.00	133.00	147.00	1.00	193.00	7.80	5.00
SMCJ130A	GHK	130.00	144.00	159.00	1.00	209.00	7.20	5.00
SMCJ130CA	BHK	130.00	144.00	159.00	1.00	209.00	7.20	5.00
SMCJ150A	GHM	150.00	167.00	185.00	1.00	243.00	6.20	5.00
SMCJ150CA	BHM	150.00	167.00	185.00	1.00	243.00	6.20	5.00
SMCJ160A	GHP	160.00	178.00	197.00	1.00	259.00	5.80	5.00
SMCJ160CA	BHP	160.00	178.00	197.00	1.00	259.00	5.80	5.00
SMCJ170A	GHR	170.00	189.00	209.00	1.00	275.00	5.50	5.00
SMCJ170CA	BHR	170.00	189.00	209.00	1.00	275.00	5.50	5.00
SMCJ180A	GHT	180.00	201.00	222.00	1.00	292.00	5.10	5.00
SMCJ180CA	BHT	180.00	201.00	222.00	1.00	292.00	5.10	5.00
SMCJ200A	GHV	200.00	224.00	247.00	1.00	324.00	4.60	5.00
SMCJ200CA	BHV	200.00	224.00	247.00	1.00	324.00	4.60	5.00
SMCJ220A	GHX	220.00	246.00	272.00	1.00	356.00	4.20	5.00
SMCJ220CA	BHX	220.00	246.00	272.00	1.00	356.00	4.20	5.00
SMCJ250A	GHZ	250.00	279.00	309.00	1.00	405.00	3.70	5.00
SMCJ250CA	BHZ	250.00	279.00	309.00	1.00	405.00	3.70	5.00
SMCJ300A	GJE	300.00	335.00	371.00	1.00	486.00	3.10	5.00
SMCJ300CA	BJE	300.00	335.00	371.00	1.00	486.00	3.10	5.00
SMCJ350A	GJG	350.00	391.00	432.00	1.00	567.00	2.60	5.00
SMCJ350CA	BJG	350.00	391.00	432.00	1.00	567.00	2.60	5.00
SMCJ400A	GJK	400.00	447.00	494.00	1.00	648.00	2.30	5.00
SMCJ400CA	BJK	400.00	447.00	494.00	1.00	648.00	2.30	5.00
SMCJ440A	GJM	440.00	492.00	543.00	1.00	713.00	2.10	5.00
SMCJ440CA	BJM	440.00	492.00	543.00	1.00	713.00	2.10	5.00

For bidirectional type having Vrwm of 10 volts and less, the I_R limit is double.
For parts without A , the V_{BR} is + 10%.



STYLE

PACKAGE

4. Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

500W SA5.0–170A

Device	Breakdown Voltage $V_{BR}@I_T$		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage $I_R @ V_{WM}$	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage $V_C @ I_{PPM}$	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX						
SA5.0	6.40	7.30	10	5	600	52.0	9.60	DO–15
SA5.0A	6.40	7.00	10	5	600	54.3	9.20	
SA6.0	6.67	8.15	10	6	600	43.9	11.40	
SA6.0A	6.67	7.37	10	6	600	48.5	10.30	
SA6.5	7.22	8.82	10	6.5	400	40.7	12.30	
SA6.5A	7.22	7.98	10	6.5	400	44.7	11.20	
SA7.0	7.78	8.60	10	7	150	37.8	13.30	
SA7.0A	7.78	8.60	10	7	150	41.7	12.00	
SA7.5	8.33	10.20	1	7.5	50	35.0	14.30	
SA7.5A	8.33	9.21	1	7.5	50	38.8	12.90	
SA8.0	8.89	10.90	1	8	25	33.3	15.00	
SA8.0A	8.89	9.83	1	8	25	36.7	13.60	
SA8.5	9.44	11.50	1	8.5	10	31.4	15.90	
SA8.5A	9.44	10.40	1	8.5	10	34.7	14.40	
SA9.0	10.00	12.20	1	9	5	29.5	16.90	
SA9.0A	10.00	11.10	1	9	5	32.5	15.40	
SA10	11.10	13.60	1	10	3	26.6	18.80	
SA10A	11.10	12.30	1	10	3	29.4	17.00	
SA11	12.20	14.90	1	11	3	24.9	20.10	
SA11A	12.20	13.50	1	11	3	27.4	18.20	
SA12	13.30	16.30	1	12	3	22.7	22.00	
SA12A	13.30	14.70	1	12	3	25.1	19.90	
SA13	14.40	17.60	1	13	3	21.0	23.80	
SA13A	14.40	15.90	1	13	3	23.2	21.50	
SA14	15.60	19.10	1	14	3	19.4	25.80	
SA14A	15.60	17.20	1	14	3	21.5	23.20	
SA15	16.70	20.40	1	15	3	18.8	26.90	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.1 Plastic-Sealed Axial Transient Voltage Suppressor(TVS)

500W SA5.0–170A

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX						
SA15A	16.70	18.50	1	15	3	20.6	24.40	DO–15
SA16	17.80	21.80	1	16	3	17.6	28.80	
SA16A	17.80	19.70	1	16	3	17.6	26.00	
SA17	18.90	23.10	1	17	3	16.4	30.50	
SA17A	18.90	20.90	1	17	3	16.1	27.60	
SA18	20.00	24.40	1	18	3	15.5	32.20	
SA18A	20.00	22.10	1	18	3	17.2	29.20	
SA20	22.20	27.10	1	20	3	13.9	35.80	
SA20A	22.20	24.50	1	20	3	15.4	32.40	
SA22	24.40	29.80	1	22	3	12.7	39.40	
SA22A	24.40	26.90	1	22	3	14.1	35.50	
SA24	26.70	32.60	1	24	3	11.6	43.00	
SA24A	26.70	29.50	1	24	3	12.8	38.90	
SA26	28.90	35.30	1	26	3	10.7	46.60	
SA26A	28.90	31.90	1	26	3	11.9	42.10	
SA28	31.10	38.00	1	28	3	9.9	50.00	
SA28A	31.10	34.40	1	28	3	11.0	45.40	
SA30	33.30	40.70	1	30	3	9.3	53.50	
SA30A	33.30	36.80	1	30	3	10.3	48.40	
SA33	36.70	44.90	1	33	3	8.5	59.00	
SA33A	36.70	40.60	1	33	3	9.4	53.30	
SA36	40.00	48.90	1	36	3	7.8	64.30	
SA36A	40.00	44.20	1	36	3	8.5	58.10	
SA40	44.40	54.30	1	40	3	7.0	71.40	
SA40A	44.40	49.10	1	40	3	7.8	64.50	
SA43	47.80	58.40	1	43	3	6.5	76.70	
SA43A	47.80	52.80	1	43	3	7.2	69.40	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.2 Plastic-Sealed Axial Transient Voltage Suppressor(TVS)

500W SA5.0–170A

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX						
SA45	50.00	61.10	1	45	3	6.2	80.30	DO–15
SA45A	50.00	55.30	1	45	3	6.9	72.70	
SA48	53.30	65.10	1	48	3	5.8	85.50	
SA48A	53.30	58.90	1	48	3	6.5	77.40	
SA51	56.70	69.30	1	51	3	5.5	91.10	
SA51A	56.70	62.70	1	51	3	6.1	82.40	
SA54	60.00	73.30	1	54	3	5.2	96.30	
SA54A	60.00	66.30	1	54	3	5.7	87.10	
SA58	64.40	78.70	1	58	3	4.9	103.00	
SA58A	64.40	71.20	1	58	3	5.3	93.60	
SA60	66.70	81.50	1	60	3	4.7	107.00	
SA60A	66.70	73.70	1	60	3	5.2	96.80	
SA64	71.10	86.90	1	64	3	4.4	114.00	
SA64A	71.10	78.60	1	64	3	4.9	103.00	
SA70	77.80	95.10	1	70	3	4.0	125.00	
SA70A	77.80	86.00	1	70	3	4.4	113.00	
SA75	83.30	102.00	1	75	3	3.7	134.00	
SA75A	83.30	92.10	1	75	3	4.1	121.00	
SA78	86.70	106.00	1	78	3	3.6	139.00	
SA78A	86.70	95.80	1	78	3	4.0	126.00	
SA85	94.40	115.00	1	85	3	3.3	151.00	
SA85A	94.40	104.00	1	85	3	3.6	137.00	
SA90	100.00	122.00	1	90	3	3.1	160.00	
SA90A	100.00	111.00	1	90	3	3.4	146.00	
SA100	111.00	136.00	1	100	3	2.8	179.00	
SA100A	111.00	123.00	1	100	3	2.8	162.00	
SA110	122.00	149.00	1	110	3	2.6	196.00	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

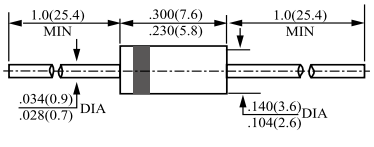
4.3 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

500W SA5.0–170A

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX						
SA110A	122.00	135.00	1	110	3	2.8	177.00	DO–15
SA120	133.00	163.00	1	120	3	2.3	214.00	
SA120A	133.00	147.00	1	120	3	2.0	193.00	
SA130	144.00	176.00	1	130	3	2.2	231.00	
SA130A	144.00	159.00	1	130	3	2.4	209.00	
SA150	167.00	204.00	1	150	3	1.9	268.00	
SA150A	167.00	185.00	1	150	3	2.1	243.00	
SA160	178.00	218.00	1	160	3	1.7	287.00	
SA160A	178.00	197.00	1	160	3	1.9	259.00	
SA170	189.00	231.00	1	170	3	1.6	304.00	
SA170A	189.00	209.00	1	170	3	1.8	275.00	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.



DO - 15

4.4 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				400W		
P4KE6.8	6.12	7.48	10.00	5.50	1000	38	10.8	DO−41
P4KE6.8A	6.45	7.14	10.00	5.80	1000	40	10.5	
P4KE7.5	6.75	8.25	10.00	6.05	500	36	11.7	
P4KE7.5A	7.13	7.88	10.00	6.40	500	37	11.3	
P4KE8.2	7.38	9.02	10.00	6.63	200	33	12.5	
P4KE8.2A	7.79	8.61	10.00	7.02	200	35	12.1	
P4KE9.1	8.19	10.00	1.00	7.37	50	30	13.8	
P4KE9.1A	8.65	9.50	1.00	7.78	50	31	13.4	
P4KE10	9.00	11.00	1.00	8.10	10	28	15	
P4KE10A	9.50	10.50	1.00	8.55	10	29	14.5	
P4KE11	9.90	12.10	1.00	8.92	5.0	26	16.2	
P4KE11A	10.50	11.60	1.00	9.40	5.0	27	15.6	
P4KE12	10.80	13.20	1.00	9.72	5.0	24	17.3	
P4KE12A	11.40	12.60	1.00	10.20	5.0	25	16.7	
P4KE13	11.70	14.30	1.00	10.50	5.0	22	19	
P4KE13A	12.40	13.70	1.00	11.10	5.0	23	18.2	
P4KE15	13.50	16.50	1.00	12.10	5.0	19	22	
P4KE15A	14.30	15.80	1.00	12.80	5.0	20	21.2	
P4KE16	14.40	17.60	1.00	12.90	5.0	18	23.5	
P4KE16A	15.20	16.80	1.00	13.60	5.0	19	22.5	
P4KE18	16.20	19.80	1.00	14.50	5.0	16	26.5	
P4KE18A	17.10	18.90	1.00	15.30	5.0	17	25.2	
P4KE20	18.00	22.00	1.00	16.20	5.0	14	29.1	
P4KE20A	19.00	21.00	1.00	17.10	5.0	15	27.7	
P4KE22	19.80	24.20	1.00	17.80	5.0	13	31.9	
P4KE22A	20.90	23.10	1.00	18.80	5.0	14	30.6	
P4KE24	21.60	26.40	1.00	19.40	5.0	12	34.7	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.5 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				400W		
P4KE24A	22.80	25.20	1.00	20.50	5.0	13	33.2	DO−41
P4KE27	24.30	29.70	1.00	21.80	5.0	11	39.1	
P4KE27A	25.70	28.40	1.00	23.10	5.0	11.2	37.5	
P4KE30	27.00	33.00	1.00	24.30	5.0	10	43.5	
P4KE30A	28.50	31.50	1.00	25.60	5.0	10	41.4	
P4KE33	29.70	36.30	1.00	26.80	5.0	9	47.7	
P4KE33A	31.40	34.70	1.00	28.20	5.0	8	45.7	
P4KE36	32.40	39.60	1.00	29.10	5.0	8	52	
P4KE36A	34.20	37.80	1.00	30.80	5.0	8.4	49.9	
P4KE39	35.10	42.90	1.00	31.60	5.0	7.4	56.4	
P4KE39A	37.10	41.00	1.00	33.30	5.0	7.8	53.9	
P4KE43	38.70	47.30	1.00	34.80	5.0	6.8	61.9	
P4KE43A	40.90	45.20	1.00	36.80	5.0	7.1	59.3	
P4KE47	42.30	51.70	1.00	38.10	5.0	6.2	67.8	
P4KE47A	44.70	49.40	1.00	40.20	5.0	5	64.8	
P4KE51	45.90	56.10	1.00	41.30	5.0	5.7	73.5	
P4KE51A	48.50	53.60	1.00	43.60	5.0	6	70.1	
P4KE56	50.40	61.60	1.00	45.60	5.0	5.2	80.5	
P4KE56A	53.20	58.80	1.00	47.80	5.0	5.5	77	
P4KE62	55.80	68.20	1.00	50.20	5.0	4.7	89	
P4KE62A	58.90	65.10	1.00	53.00	5.0	5	85	
P4KE68	61.20	74.80	1.00	55.10	5.0	4.3	98	
P4KE68A	64.60	71.40	1.00	58.10	5.0	4.6	92	
P4KE75	67.50	82.50	1.00	60.70	5.0	3.9	108	
P4KE75A	71.30	78.80	1.00	64.10	5.0	4.1	103	
P4KE82	73.80	90.20	1.00	66.40	5.0	3.6	118	
P4KE82A	77.90	86.10	1.00	70.10	5.0	3.7	113	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.6 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				400W		
P4KE91	81.90	100.00	1.00	73.70	5.0	3.2	131	DO—41
P4KE91A	86.50	95.50	1.00	77.80	5.0	3.4	125	
P4KE100	90.00	110.00	1.00	81.00	5.0	2.9	144	
P4KE100A	95.00	105.00	1.00	85.50	5.0	3.1	137	
P4KE110	99.00	121.00	1.00	89.20	5.0	2.7	158	
P4KE110A	105.00	116.00	1.00	94.00	5.0	2.8	152	
P4KE120	108.00	132.00	1.00	97.20	5.0	2.4	173	
P4KE120A	114.00	126.00	1.00	102.00	5.0	2.5	165	
P4KE130	117.00	143.00	1.00	105.0	5.0	2.2	187	
P4KE130A	124.00	137.00	1.00	111.00	5.0	2.3	179	
P4KE150	135.00	165.00	1.00	121.00	5.0	2	215	
P4KE150A	143.00	158.00	1.00	128.00	5.0	2	207	
P4KE160	144.00	176.00	1.00	130.00	5.0	1.8	230	
P4KE160A	152.00	168.00	1.00	136.00	5.0	1.9	219	
P4KE170	153.00	187.00	1.00	138.00	5.0	1.7	244	
P4KE170A	162.00	179.00	1.00	145.00	5.0	1.8	234	
P4KE180	162.00	198.00	1.00	146.00	5.0	1.6	258	
P4KE180A	171.00	189.00	1.00	154.00	5.0	1.7	246	
P4KE200	180.00	220.00	1.00	162.00	5.0	1.5	287	
P4KE200A	190.00	210.00	1.00	171.00	5.0	1.53	274	
P4KE220	198.00	242.00	1.00	175.00	5.0	1.16	344	
P4KE220A	209.00	231.00	1.00	185.00	5.0	1.22	328	
P4KE250	225.00	275.00	1.00	202.00	5.0	1.11	360	
P4KE250A	237.00	263.00	1.00	214.00	5.0	1.16	344	
P4KE300	270.00	330.00	1.00	243.00	5.0	0.93	430	
P4KE300A	285.00	315.00	1.00	256.00	5.0	0.97	414	
P4KE350	315.00	385.00	1.00	284.00	5.0	0.79	504	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

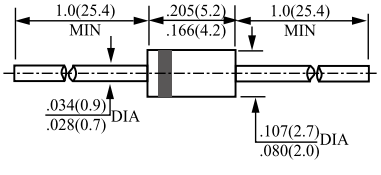
2.Devices without “A” indicate its V_{BR} range of ±10%.

4.7 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				400W		
P4KE350A	332.00	368.00	1.00	300.00	5.0	0.83	482	DO—41
P4KE400	360.00	440.00	1.00	324.00	5.0	0.7	574	
P4KE400A	380.00	420.00	1.00	342.00	5.0	0.73	548	
P4KE440	396.00	484.00	1.00	356.00	5.0	0.95	631	
P4KE440A	418.00	462.00	1.00	376.00	5.0	1	600	

NOTE: 1.Devices with "A" mean its V_{BR} range of ±5%.

2.Devices without "A" indicate its V_{BR} range of ±10%.



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4.8 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				600W		
P6KE6.8	6.12	7.48	10.00	5.50	1000	56	10.8	DO−15
P6KE6.8A	6.45	7.14	10.00	5.80	1000	57	10.5	
P6KE7.5	6.75	8.25	10.00	6.15	500	51	11.7	
P6KE7.5A	7.13	7.88	10.00	6.40	500	53	11.3	
P6KE8.2	7.38	9.02	10.00	6.63	200	48	12.5	
P6KE8.2A	7.79	8.61	10.00	7.02	200	50	12.1	
P6KE9.1	8.19	10.00	1.00	7.37	50	44	13.8	
P6KE9.1A	8.65	9.50	1.00	7.78	50	45	13.4	
P6KE10	9.00	11.00	1.00	8.10	10	40	15	
P6KE10A	9.50	10.50	1.00	8.55	10	41	14.5	
P6KE11	9.90	12.10	1.00	8.92	5.0	37	16.2	
P6KE11A	10.50	11.60	1.00	9.40	5.0	38	15.6	
P6KE12	10.80	13.20	1.00	9.72	5.0	35	17.3	
P6KE12A	11.40	12.60	1.00	10.20	5.0	36	16.7	
P6KE13	11.70	14.30	1.00	10.50	5.0	32	19	
P6KE13A	12.40	13.70	1.00	11.10	5.0	33	18.2	
P6KE15	13.50	16.50	1.00	12.10	5.0	27	22	
P6KE15A	14.30	15.80	1.00	12.80	5.0	28	21.2	
P6KE16	14.40	17.60	1.00	12.90	5.0	26	23.5	
P6KE16A	15.20	16.80	1.00	13.60	5.0	27	22.5	
P6KE18	16.20	19.80	1.00	14.50	5.0	23	26.5	
P6KE18A	17.10	18.90	1.00	15.30	5.0	24	25.2	
P6KE20	18.00	22.00	1.00	16.20	5.0	21	29.1	
P6KE20A	19.00	21.00	1.00	17.10	5.0	22	27.7	
P6KE22	19.80	24.20	1.00	17.80	5.0	19	31.9	
P6KE22A	20.90	23.10	1.00	18.80	5.0	20	30.6	
P6KE24	21.60	26.40	1.00	19.40	5.0	17	34.7	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.9 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R@V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C@I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				600W		
P6KE24A	22.80	25.20	1.00	20.50	5.0	18	33.2	DO−15
P6KE27	24.30	29.70	1.00	21.80	5.0	15	39.1	
P6KE27A	25.70	28.40	1.00	23.10	5.0	16	37.5	
P6KE30	27.00	33.00	1.00	24.30	5.0	14	43.5	
P6KE30A	28.50	31.50	1.00	25.60	5.0	14.4	41.4	
P6KE33	29.70	36.30	1.00	26.80	5.0	12.6	47.7	
P6KE33A	31.40	34.70	1.00	28.20	5.0	13.2	45.7	
P6KE36	32.40	39.60	1.00	29.10	5.0	11.6	52	
P6KE36A	34.20	37.80	1.00	30.80	5.0	12	49.9	
P6KE39	35.10	42.90	1.00	31.60	5.0	10.6	56.4	
P6KE39A	37.10	41.00	1.00	33.30	5.0	11.2	53.9	
P6KE43	38.70	47.30	1.00	34.80	5.0	9.6	61.9	
P6KE43A	40.90	45.20	1.00	36.80	5.0	10.1	59.3	
P6KE47	42.30	51.70	1.00	38.10	5.0	8.9	67.8	
P6KE47A	44.70	49.40	1.00	40.20	5.0	9.3	64.8	
P6KE51	45.90	56.10	1.00	41.30	5.0	8.2	73.5	
P6KE51A	48.50	53.60	1.00	43.60	5.0	8.6	70.1	
P6KE56	50.40	61.60	1.00	45.60	5.0	7.4	80.5	
P6KE56A	53.20	58.80	1.00	47.80	5.0	7.8	77	
P6KE62	55.80	68.20	1.00	50.20	5.0	6.8	89	
P6KE62A	58.90	65.10	1.00	53.00	5.0	7.1	85	
P6KE68	61.20	74.80	1.00	55.10	5.0	6.1	98	
P6KE68A	64.60	71.40	1.00	58.10	5.0	6.5	92	
P6KE75	67.50	82.50	1.00	60.70	5.0	5.5	108	
P6KE75A	71.30	78.80	1.00	64.10	5.0	5.8	103	
P6KE82	73.80	90.20	1.00	66.40	5.0	5.1	118	
P6KE82A	77.90	86.10	1.00	70.10	5.0	5.3	113	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.10 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				600W		
P6KE91	81.90	100.00	1.00	73.70	5.0	4.5	131	DO—15
P6KE91A	86.50	95.50	1.00	77.80	5.0	4.8	125	
P6KE100	90.00	110.00	1.00	81.00	5.0	4.2	144	
P6KE100A	95.00	105.00	1.00	85.50	5.0	4.4	137	
P6KE110	99.00	121.00	1.00	89.20	5.0	3.8	158	
P6KE110A	105.00	116.00	1.00	94.00	5.0	4	152	
P6KE120	108.00	132.00	1.00	97.20	5.0	3.5	173	
P6KE120A	114.00	126.00	1.00	102.00	5.0	3.6	165	
P6KE130	117.00	143.00	1.00	105.00	5.0	3.2	187	
P6KE130A	124.00	137.00	1.00	111.00	5.0	3.3	179	
P6KE150	135.00	165.00	1.00	121.00	5.0	2.8	215	
P6KE150A	143.00	158.00	1.00	128.00	5.0	2.9	207	
P6KE160	144.00	176.00	1.00	130.00	5.0	2.6	230	
P6KE160A	152.00	168.00	1.00	136.00	5.0	2.7	219	
P6KE170	153.00	187.00	1.00	138.00	5.0	2.5	244	
P6KE170A	162.00	179.00	1.00	145.00	5.0	2.6	234	
P6KE180	162.00	198.00	1.00	146.00	5.0	2.3	258	
P6KE180A	171.00	189.00	1.00	154.00	5.0	2.4	246	
P6KE200	180.00	220.00	1.00	162.00	5.0	2.1	287	
P6KE200A	190.00	210.00	1.00	171.00	5.0	2.2	274	
P6KE220	198.00	242.00	1.00	175.00	5.0	1.75	344	
P6KE220A	209.00	231.00	1.00	185.00	5.0	1.83	328	
P6KE250	225.00	275.00	1.00	202.00	5.0	1.67	360	
P6KE250A	237.00	263.00	1.00	214.00	5.0	1.75	344	
P6KE300	270.00	330.00	1.00	243.00	5.0	1.4	430	
P6KE300A	285.00	315.00	1.00	256.00	5.0	1.45	414	
P6KE350	315.00	385.00	1.00	284.00	5.0	1.2	504	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

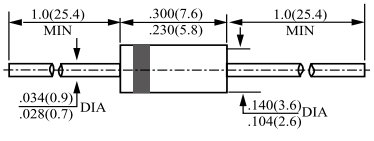
2.Devices without “A” indicate its V_{BR} range of ±10%.

4.11 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				600W		
P6KE350A	332.00	368.00	1.00	300.0	5.0	1.25	482	DO—15
P6KE400	360.00	440.00	1.00	324.0	5.0	1.05	574	
P6KE400A	380.00	420.00	1.00	342.0	5.0	1.1	548	
P6KE440	396.00	484.00	1.00	356.0	5.0	0.95	631	
P6KE440A	418.00	462.00	1.00	376.0	5.0	1	600	

NOTE: 1.Devices with "A" mean its V_{BR} range of ±5%.

2.Devices without "A" indicate its V_{BR} range of ±10%.



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4.12 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				1500W		
1.5KE6.8	6.12	7.48	10.00	5.5	1000	139	10.8	DO−201AD
1.5KE6.8A	6.45	7.14	10.00	5.80	1000	143	10.5	
1.5KE7.5	6.75	8.25	10.00	6.05	500	128	11.7	
1.5KE7.5A	7.13	7.88	10.00	6.40	500	132	11.3	
1.5KE8.2	7.38	9.02	10.00	6.63	200	120	12.5	
1.5KE8.2A	7.79	8.61	10.00	7.02	200	124	12.1	
1.5KE9.1	8.19	10.00	1.00	7.37	50	109	13.8	
1.5KE9.1A	8.65	9.50	1.00	7.78	50	112	13.4	
1.5KE10	9.00	11.00	1.00	8.10	10	100	15	
1.5KE10A	9.50	10.50	1.00	8.55	10	103	14.5	
1.5KE11	9.90	12.10	1.00	8.92	5.0	93	16.2	
1.5KE11A	10.50	11.60	1.00	9.40	5.0	96	15.6	
1.5KE12	10.80	13.20	1.00	9.72	5.0	87	17.3	
1.5KE12A	11.40	12.60	1.00	10.20	5.0	90	16.7	
1.5KE13	11.70	14.30	1.00	10.50	5.0	79	19	
1.5KE13A	12.40	13.70	1.00	11.10	5.0	82	18.2	
1.5KE15	13.50	16.50	1.00	12.10	5.0	68	22	
1.5KE15A	14.30	15.80	1.00	12.80	5.0	71	21.2	
1.5KE16	14.40	17.60	1.00	12.90	5.0	64	23.5	
1.5KE16A	15.20	16.80	1.00	13.60	5.0	67	22.5	
1.5KE18	16.20	19.80	1.00	14.50	5.0	56.5	26.5	
1.5KE18A	17.10	18.90	1.00	15.30	5.0	59.5	25.2	
1.5KE20	18.00	22.00	1.00	16.20	5.0	51.5	29.1	
1.5KE20A	19.00	21.00	1.00	17.10	5.0	54	27.7	
1.5KE22	19.80	24.20	1.00	17.80	5.0	47	31.9	
1.5KE22A	20.90	23.10	1.00	18.80	5.0	49	30.6	
1.5KE24	21.60	26.40	1.00	19.40	5.0	43	34.7	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.13 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				1500W		
1.5KE24A	22.80	25.20	1.00	20.50	5.0	45	33.2	DO—201AD
1.5KE27	24.30	29.70	1.00	21.80	5.0	38.5	39.1	
1.5KE27A	25.70	28.40	1.00	23.10	5.0	40	37.5	
1.5KE30	27.00	33.00	1.00	24.30	5.0	34.5	43.5	
1.5KE30A	28.50	31.50	1.00	25.60	5.0	36	41.4	
1.5KE33	29.70	36.30	1.00	26.80	5.0	31.5	47.7	
1.5KE33A	31.40	34.70	1.00	28.20	5.0	33	45.7	
1.5KE36	32.40	39.60	1.00	29.10	5.0	9	52	
1.5KE36A	34.20	37.80	1.00	30.80	5.0	30	49.9	
1.5KE39	35.10	42.90	1.00	31.60	5.0	26.5	56.4	
1.5KE39A	37.10	41.00	1.00	33.30	5.0	28	53.9	
1.5KE43	38.70	47.30	1.00	34.80	5.0	24	61.9	
1.5KE43A	40.90	45.20	1.00	36.80	5.0	25.3	59.3	
1.5KE47	42.30	51.70	1.00	38.10	5.0	22.2	67.8	
1.5KE47A	44.70	49.40	1.00	40.20	5.0	23.2	64.8	
1.5KE51	45.90	56.10	1.00	41.30	5.0	20.4	73.5	
1.5KE51A	48.50	53.60	1.00	43.60	5.0	21.4	70.1	
1.5KE56	50.40	61.60	1.00	45.60	5.0	18.6	80.5	
1.5KE56A	53.20	58.80	1.00	47.80	5.0	19.5	77	
1.5KE62	55.80	68.20	1.00	50.20	5.0	16.9	89	
1.5KE62A	58.90	65.10	1.00	53.00	5.0	17.7	85	
1.5KE68	61.20	74.80	1.00	55.10	5.0	15.3	98	
1.5KE68A	64.60	71.40	1.00	58.10	5.0	16.3	92	
1.5KE75	67.50	82.50	1.00	60.70	5.0	13.9	108	
1.5KE75A	71.30	78.80	1.00	64.10	5.0	14.6	103	
1.5KE82	73.80	90.20	1.00	66.40	5.0	12.7	118	
1.5KE82A	77.90	86.10	1.00	70.10	5.0	1.33	113	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

2.Devices without “A” indicate its V_{BR} range of ±10%.

4.14 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				1500W		
1.5KE91	81.90	100.00	1.00	73.70	5.0	11.4	131	DO−201AD
1.5KE91A	86.50	95.50	1.00	77.80	5.0	12	125	
1.5KE100	90.00	110.00	1.00	81.00	5.0	10.4	144	
1.5KE100A	95.00	105.00	1.00	85.50	5.0	11	137	
1.5KE110	99.00	121.00	1.00	89.20	5.0	9.5	158	
1.5KE110A	105.00	116.00	1.00	94.00	5.0	9.9	152	
1.5KE120	108.00	132.00	1.00	97.20	5.0	8.7	173	
1.5KE120A	114.00	126.00	1.00	102.00	5.0	9.1	165	
1.5KE130	117.00	143.00	1.00	105.00	5.0	8	187	
1.5KE130A	124.00	137.00	1.00	111.00	5.0	8.4	179	
1.5KE150	135.00	165.00	1.00	121.00	5.0	7	215	
1.5KE150A	143.00	158.00	1.00	128.00	5.0	7.2	207	
1.5KE160	144.00	176.00	1.00	130.00	5.0	6.5	230	
1.5KE160A	152.00	168.00	1.00	136.00	5.0	6.8	219	
1.5KE170	153.00	187.00	1.00	138.00	5.0	6.2	244	
1.5KE170A	162.00	179.00	1.00	145.00	5.0	6.4	234	
1.5KE180	162.00	198.00	1.00	146.00	5.0	5.8	258	
1.5KE180A	171.00	189.00	1.00	154.00	5.0	6.1	246	
1.5KE200	180.00	220.00	1.00	162.00	5.0	5.2	287	
1.5KE200A	190.00	210.00	1.00	171.00	5.0	5.5	274	
1.5KE220	198.00	242.00	1.00	175.00	5.0	4.3	344	
1.5KE220A	209.00	231.00	1.00	185.00	5.0	4.6	328	
1.5KE250	225.00	275.00	1.00	202.00	5.0	5	360	
1.5KE250A	237.00	263.00	1.00	214.00	5.0	5	344	
1.5KE300	270.00	330.00	1.00	243.00	5.0	5	430	
1.5KE300A	285.00	315.00	1.00	256.00	5.0	5	414	
1.5KE350	315.00	385.00	1.00	284.00	5.0	4	504	

NOTE: 1.Devices with “A” mean its V_{BR} range of ±5%.

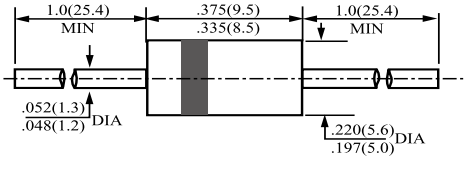
2.Devices without “A” indicate its V_{BR} range of ±10%.

4.15 Plastic-Sealed Axial Transient Voltage Suppressor (TVS)

Device	Breakdown Voltage V_{BR}@I_T		Test Current I_T	Working Peak Reverse Voltage V_{WM}	Reverse Leakage I_R @ V_{WM}	Maximun Peak Impulse Surge Current I_{PPM}	Maximum Clamping Voltage V_C @ I_{PPM}	Package Dimensions
	(V)		(mA)	(V)	(μA)	(A)	(V)	
	MIN	MAX				1500W		
1.5KE350A	332.00	368.00	1.00	300.00	5.0	4	482	DO—201AD
1.5KE400	360.00	440.00	1.00	324.00	5.0	4	574	
1.5KE400A	380.00	420.00	1.00	342.00	5.0	4	548	
1.5KE440	396.00	484.00	1.00	356.00	5.0	2.38	631	
1.5KE440A	418.00	462.00	1.00	376.00	5.0	2.5	600	

NOTE: 1.Devices with "A" mean its V_{BR} range of ±5%.

2.Devices without "A" indicate its V_{BR} range of ±10%.

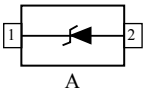


DO – 201AD

ESD PROTECTION

1. SOD–923 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS	Style
LESD9D3.3T5G	3.3	5	10.4	9.8	2.5	80	102	A
LESD9D5.0T5G	5	6.2	12.3	8.7	1	65	107	A
LESD9D3.3CT5G	3.3	5	14.1	11.2	1	25	150	B
LESD9D5.0CT5G	5	5.6	18.6	9.4	1	15	150	B



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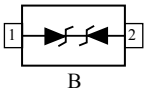
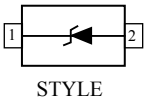


B

PACKAGE

2. SOD– 723 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LESD7D3.3T5G	3.3	5	10.4	9.8	2.5	80	102
LESD7D5.0T5G	5	6.2	12.3	8.7	1	65	107

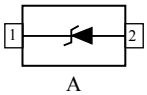


STYLE

PACKAGE

3. SC–79/ SOD–523 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Break-down Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@ 8/20μs-A	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS	Style
LESD5Z2.5T1G	2.5	4.0	10.9	11.0	6	145	200	A
LESD5Z3.3T1G	3.3	5.0	14.1	11.2	1	105	200	A
LESD5Z5.0T1G	5.0	6.2	18.6	9.4	1	80	200	A
LESD5Z6.0T1G	6.0	6.8	20.5	8.8	1	70	200	A
LESD5Z7.0T1G	7.0	7.5	22.7	8.8	1	65	200	A
LESD5Z5.0CT1G	5.0	5.6	18.6	9.4	1	80	200	B



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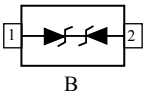
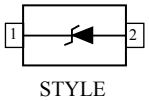


B

PACKAGE

4. SC–76/ SOD–323 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Break-down Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@ 8/20μs-A	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS
LESD3Z5.0T1G	5	6	9.8	5	10	350	350

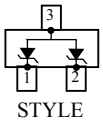


STYLE

PACKAGE

5. SOT–23/ TO–236AB General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Break-down Voltage V_{BR}	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS
LESDA5V3LT1G	3	5.3	2	220	300
LESDA6V1LT1G	5.25	6.1	20	140	300
LESDA14V2LT1G	12	14.2	5	90	300
LESDA25VLT1G	24	25	1	50	300

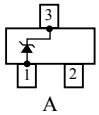


STYLE

PACKAGE

6. SOT–23/ TO–236AB General ESD/ TVS Devices

Device	V_{RWM} (V)	V_{BR} (V) @I_t =1mA	I_R (μA) @ V_{RWM}	V_C (V) @I_{PP}=1A, 8/20μS	I_{PPM}(A) @8/20μS	C_J(pF) @V_R=0V, f=1MHz	Style
LGSOT04LT1G	4.0	5.0	20	8.5	17	300	A
LGSOT05LT1G	5.0	6.0	20	9.8	17	220	A
LGSOT08LT1G	8.0	8.5	5.0	13.4	15	190	A
LGSOT12LT1G	12	13.3	1.0	19	12	150	A
LGSOT15LT1G	15	16.7	1.0	24	10	140	A
LGSOT24LT1G	24	26.7	1.0	43	5.0	83	A
LGSOT36LT1G	36	40	1.0	60	2.0	80	A
LGSOT03CLT1G	3.3	4.0	20	7.0	18	400	B
LGSOT04CLT1G	4.0	5.0	20	8.5	17	300	B
LGSOT05CLT1G	5.0	6.0	20	9.8	17	220	B
LGSOT08CLT1G	8.0	8.5	5.0	13.4	15	190	B
LGSOT12CLT1G	12	13.3	1.0	19	12	90	B
LGSOT15CLT1G	15	16.7	1.0	24	10	60	B
LGSOT24CLT1G	24	26.7	1.0	43	5.0	63	B
LGSOT36CLT1G	36	40	1.0	60	2.0	60	B



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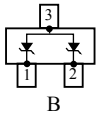
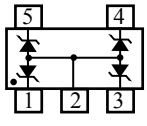


B

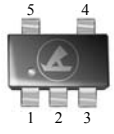
PACKAGE

7. SOT–553 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LESDA5V6AV5T1G	3	5.3	10	1.6	1	15	20
LESDA6V8AV5T1G	4.3	6.47	13	1.6	1	9.5	20
LESDA5V6V5T1G	3	5.32	10.5	10	1	90	100
LESDA6V2V5T1G	4	5.89	11.5	9	0.5	80	100
LESDA6V8V5T1G	4.3	6.46	12.5	8	0.1	70	100



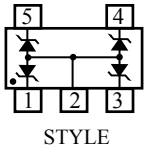
STYLE



PACKAGE

8. SC–88A/ SOT–353 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Break-down Voltage V_{BR}	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS
LESDA6V1W5T1G	5	6.1	1	90	150

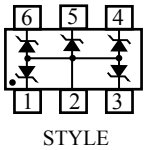


STYLE

PACKAGE

9. SOT–563 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LGSMF05CT1G	5	6.2	12	9	1.0	54	100

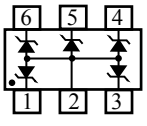


STYLE

PACKAGE

10. SC–88/ SOT–363 General ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Break-down Voltage V_{BR}	Leakage Current μA@V_{WM}	C_j-pF	Power@ 8/20μs WATTS	Style
LESDA6V1W6T1G	5.0	6.1	1	50	100	A
LESD6A6V8W6T1G	5.0	6.4	1	40	75	B
LESD6A5V6W6T1G	3.3	5.2	1	45	75	B



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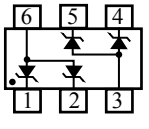
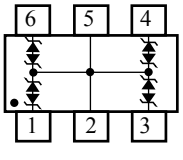


B

PACKAGE

11. SC-74 Quad Bidirectional Transil Suppressor for ESD Protection

Device	V_{BR}@I_R			I_{RM}@V_{WM}		R_d	C
	Min	Max		Max		typ. note1	typ. 0V bias
	V	V	mA	μA	V	Ω	pF
LESDA6V1BC6T1G	6.1	8	1	1	5	1.35	20

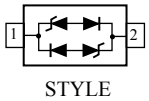


STYLE

PACKAGE

12. SOD–323 Low Capacitance ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LGBLC05CT1G	5	6	18.3	17	5	3	350
LGBLC03CT1G	3.3	4	19	20	5	3	350

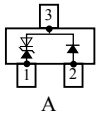


STYLE

PACKAGE

13. SOT–23/ TO–236AB Low Capacitance ESD/ TVS Devices

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	I_{PPM}(A) @8/20μS	C_J(pF) @V_R=0V, f=1MHz	Style
LSLVU2.8LT1G	2.8	1.0	30	8.0	A
LSL05LT1G	5.0	20	17	5.0	B
LSL12LT1G	12	1.0	12	5.0	B
LSL15LT1G	15	1.0	10	5.0	B
LSL24LT1G	24	1.0	5.0	5.0	B



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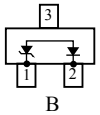
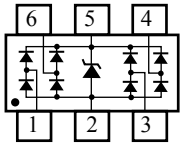


B

PACKAGE

14. SOT–23–6 Low Capacitance ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LGRV05-4LT1G	5	6	15	5	5	3.5	500

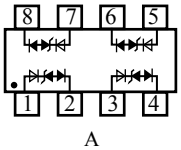


STYLE

PACKAGE

15. SOP–8 Low Capacitance ESD/ TVS Devices

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	I_{PPM}(A) @8/20μS	C_J(pF) @V_R=0V, f=1MHz	Style
LSLVU2.8-4	2.8	1	24	10	A
LSLVU2.8-8	2.8	1	24	10	B



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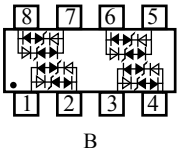
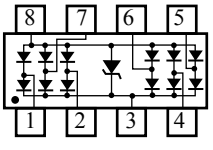


B


PACKAGE

15.1 SOP–8 Low Capacitance ESD/ TVS Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Clamping Voltage V_C@I_{PP}	Current I_{PP}@8/20μs A	Leakage Current μA@V_{WM}	Capacitance C_j-pF	Power@ 8/20μs WATTS
LSRDA3.3-4	3.3	4	10.9	43	125	15	500
LSRDA05-4	5	6	13.5	42	20	15	500

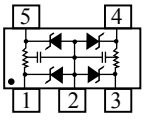


STYLE


PACKAGE

16. EMI +ESD Protection Devices

Device	Stand-Off Voltage V_{WM}	MIN. Breakdown Voltage V_{BR}	Reverse Leakage Current μA@V_{WM}	Resistance Ohms	Cut-Off Frequency MHz(50Ohm System)	C_I-pF	Number of Lines	Style	Package
LEM4D-100L	5.0	6.0	0.1@3V	100	150	20	4	B	DFN–8
LEM6D-100L	5.0	6.0	0.1@3V	100	150	20	6	C	DFN–12
LEM8D-100L	5.0	6.0	0.1@3V	100	150	20	8	D	DFN–16
LUF6401MN	5.0	6.0	0.5@3V	100	150	20	6	C	DFN–12
LUF8401MN	5.0	6.0	0.1@3.3V	100	150	20	8	D	DFN–16
LETF701T1G	5.0	6.0	1.0@3V	40	40	160	2	A	SC70–5L



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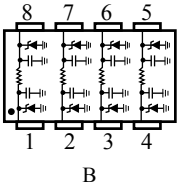

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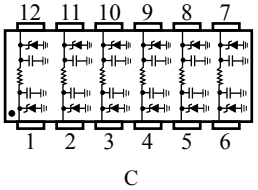

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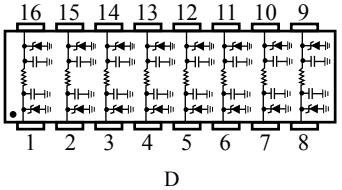
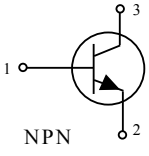


D

GENERAL PURPOSE TRANSISTORS

1. SOT–723 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)	TYP (MHz)	
L2SA2030M3T5G	BW	500	12	270/680	2/10	-0.25	-200/-10	260	PNP



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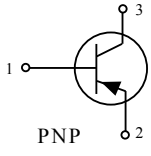


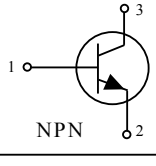
PNP

PACKAGE

2. SC–89 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			f_T (MHz)	Polarity
				Min	Max	(mA)		
L2SA1774QT1G	FQ	150	50	120	270	1.0	140	PNP
L2SA1774RT1G	FR	150	50	180	390	1.0	140	PNP
L2SA1774ST1G	FS	150	50	270	560	1.0	140	PNP
L2SC4617QT1G	F9	150	50	120	270	1.0	180	NPN
L2SC4617RT1G	BQ	150	50	180	390	1.0	180	NPN
L2SC4617ST1G	BR	150	50	270	560	1.0	180	NPN

Note*: Min



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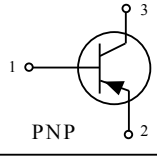
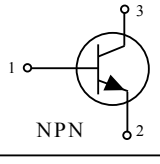


PNP

PACKAGE

3. SC–70/ SOT–323 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}@I_C			f_T (MHz)	Polarity
				Min	Max	(mA)		
L2SC4083NWT1G	4N	50	11	56	120	5	3200	NPN
L2SC4083PWT1G	1D	50	11	82	180	5	3200	NPN
L2SC4083QWT1G	4Q	50	11	120	270	5	3200	NPN
LMBTH10WT1G	3E	50	25	60	∞	10	650	NPN
L2SC4226T1G	R2	100	12	40	250	7	4000	NPN
LBC846BWT1G	1B	100	65	200	450	2	100	NPN
LBC847AWT1G	1E	100	45	110	220	2	100	NPN
LBC847BWT1G	1F	100	45	200	450	2	100	NPN
LBC847CWT1G	1G	100	45	420	800	2	100	NPN
LBC848BWT1G	1K	100	30	200	450	2	100	NPN
LBC848CWT1G	1L	100	30	420	800	2	100	NPN
LBC856BWT1G	3B	100	65	220	475	2	100	PNP
LBC857BWT1G	3F	100	45	220	475	2	100	PNP
LBC857CWT1G	3G	100	45	420	800	2	100	PNP
LBC858BWT1G	3K	100	30	220	475	2	100	PNP
LBC858CWT1G	3L	100	30	420	800	2	100	PNP
LMSB1218A-RT1G	BR	100	45	210	340	2	–	PNP
LMSD1819A-RT1G	ZR	100	50	210	340	2	–	NPN
L2SA1576AQT1G	FQ	150	50	120	270	1	140	PNP
L2SA1576ART1G	FR	150	50	180	390	1	140	PNP
L2SC4081QT1G	BQ	150	50	120	270	1	180	NPN
L2SC4081RT1G	BR	150	50	180	390	1	180	NPN
L2SC4081ST1G	BS	150	50	270	560	1	180	NPN
LBC807-40WT1G	YL	500	45	250	600	100	200	PNP
LBC817-40WT1G	YM	500	45	250	600	100	200	NPN



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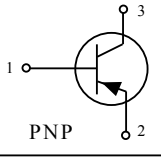

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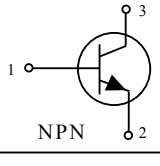
PACKAGE

3.1 SC–70/ SOT–323 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T TYP (MHz)	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)		
LBC846AWT1G	1A	100	65	110/220	2.0/5.0	0.6	100/5.0	100	NPN
LBC848AWT1G	1J	100	30	110/220	2.0/5.0	0.6	100/5.0	100	NPN
L2SC3356WT1G	R24	100	12	82/270	20/10	–	–	7GHz	NPN
L2SA1576AST1G	FS	150	50	120/560	1/6	0.5	50/5	140	PNP
LBC807-16WT1G	5AS	500	45	100/250	100/1.0	0.7	500/50	200	PNP
LBC807-25WT1G	5B	500	45	160/400	100/1.0	0.7	500/50	200	PNP
LBC817-16WT1G	6A	500	45	100/250	100/1.0	0.7	500/50	200	NPN
LBC817-25WT1G	6BS	500	45	160/400	100/1.0	0.7	500/50	200	NPN
LMBTA06WT1G	GM	500	80	100	10/1.0	0.25	100/10	100	NPN
LMBTA56WT1G	2GM	500	80	100	10/1.0	0.25	100/10	50	PNP

4 SOT–23/ TO–236AB Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@/I_C$			f_T (MHz)	Polarity
				Min	Max	(mA)		
LMBT918LT1G	M3B	50	15	20	–	3	–	NPN
L9015SLT1G	15S	100	45	300	600	1	300	PNP
SBC847BLT1G	S1F	100	45	200	450	2	–	NPN
L2SA812RLT1G	M6	150	50	180	390	1	180	PNP
L2SA812SLT1G	M7	150	50	270	560	1	180	PNP
L2SC1623RLT1G	L6	150	50	180	390	1	180	NPN
L2SC1623SLT1G	L7	150	50	270	560	1	180	NPN
LMBTA94LT1G	4Z	150	400	75	200	10	–	PNP
LMBT6520LT1G	2Z	500	350	20	200	50	–	PNP
LMBT6517LT1G	1Z	500	350	20	200	50	–	NPN
LMBT6427LT1G	1V	500	40	20	200	100	–	NPN
L2SD1781KRLT1G	AFR	800	32	180	390	100	150	NPN
L2SB1197KQLT1G	AHQ	800	32	120	270	100	200	PNP
L2SB1197KRLT1G	AHR	800	32	180	390	100	200	PNP
LMBTH10QLT1G	3EQ	–	25	120	–	4	650	PNP



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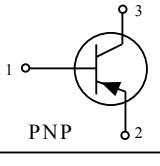

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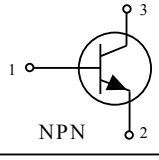
4.1 SOT–23/ TO–236AB Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)	TYP (MHz)	
LBCW65ALT1G	EA	800	32	75/220	10/1.0	0.7	500/50	100	NPN
LBCW68GLT1G	DG	800	45	120/400	10/1.0	1.5	300/30	100	PNP
LBCW70LT1G	H2	100	45	215/500	2.0/5.0	0.3	10/0.5	–	PNP
LBCX19LT1G	U1	500	45	100/600	100/1.0	0.62	500/50	–	NPN
LMBT918LT1G	M3B	50	15	20	3.0/1.0	0.4	10/1.0	600	NPN
LMBT5087LT1G	2Q	50	50	250/800	0.1/5.0	0.3	10/1.0	40	PNP
LMBT5401LT1G	2L	500	150	60/240	10/5.0	0.5	50/0.5	100	PNP
LBC807-16LT1G	5A1	500	45	100/250	100/1.0	0.7	500/50	200	PNP
LBC807-25LT1G	5B1	500	45	160/400	100/1.0	0.7	500/50	200	PNP
LBC807-40LT1G	5C1	500	45	250/600	100/1.0	0.7	55/50	200	PNP
LBC817-16LT1G	6A	500	45	100/250	100/1.0	0.7	500/50	200	NPN
LBC817-25LT1G	6B	500	45	160/400	100/1.0	0.7	500/50	200	NPN
LBC817-40LT1G	6C	500	45	250/600	100/1.0	0.7	500/50	200	NPN
LBC846ALT1G	1A	100	65	110/220	2.0/5.0	0.6	100/5.0	100	NPN
LBC846BLT1G	1B	100	65	200/450	2.0/5.0	0.6	100/5.0	100	NPN
LBC847ALT1G	1E	100	45	110/220	2.0/5.0	0.6	100/5.0	100	NPN
LBC847BLT1G	1F	100	45	200/450	2.0/5.0	0.6	100/5.0	100	NPN
LBC847CLT1G	1G	100	45	420/800	2.0/5.0	0.6	100/5.0	100	NPN
LBC848ALT1G	1J	100	30	110/220	2.0/5.0	0.6	100/5.0	100	NPN
LBC848BLT1G	1K	100	30	200/450	2.0/5.0	0.6	100/5.0	100	NPN
LBC848CLT1G	1L	100	30	420/800	2.0/5.0	0.6	100/5.0	100	NPN
LBC856ALT1G	3A	100	65	125/250	2.0/5.0	0.65	100/5.0	100	PNP
LBC856BLT1G	3B	100	65	220/475	2.0/5.0	0.65	100/5.0	100	PNP
LBC857ALT1G	3E	100	45	125/250	2.0/5.0	0.65	100/5.0	100	PNP
LBC857BLT1G	3F	100	45	220/475	2.0/5.0	0.65	100/5.0	100	PNP
LBC857CLT1G	3G	100	45	420/800	2.0/5.0	0.65	100/5.0	100	PNP
LBC858ALT1G	3J	100	30	125/250	2.0/5.0	0.65	100/5.0	100	PNP
LBC858BLT1G	3K	100	30	220/475	2.0/5.0	0.65	100/5.0	100	PNP
LBC858CLT1G	3L	100	30	420/800	2.0/5.0	0.65	100/5.0	100	PNP
LMBT5551LT1G	G1	600	140	80/250	10/5.0	0.20	50/5.0	–	NPN

4.2 SOT–23/ TO–236AB Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)	TYP (MHz)	
SBC847BLT1G	S1F	100	45	200/450	2.0/5.0	0.6	100/5.0	100	NPN
L2SC3837LT1G	AC	50mA	20	56/180	10/10	0.5	20/4	1500	NPN
L2SC3837QLT1G	ACQ	50mA	20	120/270	10/10	0.5	20/4	1500	NPN
L2SC3838LT1G	AD	50mA	11	56/180	5/10	0.5	10/5	3.2	NPN
L2SC3838QLT1G	ADQ	50	11	120/270	5/10	0.5	10/5	3.2	NPN
L9012QALT1G	12A	500	20	150/220	50/1	0.6	500/50	–	PNP
L9012RLT1G	12R	500	20	200/400	50/1	0.6	500/50	–	PNP
L9012SLT1G	12S	500	20	300/600	50/1	0.6	500/50	–	PNP
L9013QALT1G	13A	500	20	150/220	50/1	0.6	500/50	–	NPN
L9014TLT1G	14T	100	45	400/1000	5/1	0.3	100/5	–	NPN
L9015HRLT1G	A4G	100	45	200/400	1/5	0.3	100/5	–	PNP
LBC850BLT1G	2F	100	45	200/450	2/5	0.6	100/5	100	NPN
LMBT6429LT1G	1L	200	45	500/–	1/5	0.6	100/5	400	NPN
LMBTA70LT1G	M2C	100	40	40/400	5/10	0.25	10/1	125	PNP
SSBC847BLT1G	SK	100	45	200/450	2.0/5.0	0.6	100/5.0	100	NPN



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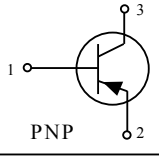

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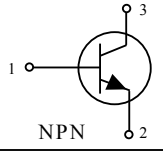
4.3 SOT–23/ TO–236AB Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)	TYP (MHz)	
LMBT6427LT1G	1V	500	40	10,000/100,000	10/5.0	1.2	50/0.5	–	NPN
LMBT6517LT1G	1Z	500	350	30/200	30/10	1.0	50/5.0	40	NPN
LMBT6520LT1G	2Z	500	350	30/200	30/10	1.0	50/5.0	40	PNP
LMBTA05LT1G	1H	500	60	100	10/1.0	0.25	100/10	100	NPN
LMBTA06LT1G	1GM	500	80	100	10/1.0	0.25	100/10	100	NPN
LMBTA13LT1G	1M	300	V_{CES}=30	5000	10/5.0	1.5	100/0.1	125	NPN
LMBTA14LT1G	1N	300	V_{CES}=30	10,000	10/5.0	1.5	100/0.1	125	NPN
LMBTA42LT1G	1D	500	300	40	30/10	0.5	2.0	50	NPN
LMBTA43LT1G	M1E	500	200	40	30/10	0.5	2.0	50	NPN
LMBTA55LT1G	2H	500	60	100	10/1.0	0.25	100/10	50	PNP
LMBTA56LT1G	2GM	500	80	100	10/1.0	0.25	100/10	50	PNP
LMBTA92LT1G	2D	500	300	25	30/10	0.5	20/2.0	50	PNP
LMBTH10LT1G	3EM	50	25	60	4.0/10	0.5	4.0/0.4	650	NPN
L2SD2114KVLT1G	BV	500	20	820/1800	10/3	0.4	500/20	3500	NPN
L2SD2114KWLT1G	BW	500	20	1200/2700	10/3	0.4	500/20	3500	NPN
L8050HPLT1G	1HA	1500	25	120/200	100/1	0.5	800/80	–	NPN
L8550HPLT1G	1HB	1500	25	120/200	100/1	0.5	800/80	–	PNP
L9012PLT1G	12P	500	20	100/200	50/1	0.6	500/50	–	PNP
L9013PLT1G	13P	500	20	100/200	50/1	0.6	500/50	–	NPN



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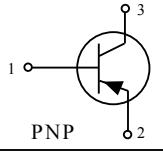

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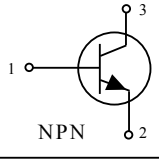
PACKAGE

4.4 SOT–23/ TO–236AB Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}@/I_C			f_T (MHz)	Polarity
				Min	Max	(mA)		
L8050HQLT1G	1HC	1500	25	150	300	50	–	NPN
L8550HQLT1G	1HD	1500	25	150	300	50	–	PNP
L8050PLT1G	80P	800	25	120	200	50	–	NPN
L8050QLT1G	1YC	800	25	150	300	50	–	NPN
L8550PLT1G	85P	800	25	120	200	50	–	PNP
L8550QLT1G	1YD	800	25	150	300	50	–	PNP
L9012QLT1G	12Q	500	20	150	300	50.0	100	PNP
L9013QLT1G	13Q	500	20	150	300	50.0	100	NPN
L9013RLT1G	13R	500	20	200	400	50.0	100	NPN
L9013SLT1G	13S	500	20	300	600	50.0	100	NPN
L9014QLT1G	14Q	100	45	150	300	1.0	300	NPN
L9014RLT1G	14R	100	45	200	400	1.0	300	NPN
L9014SLT1G	14S	100	45	300	600	1.0	300	NPN
L9015QLT1G	15Q	100	45	150	300	1.0	150	PNP
L9015RLT1G	15R	100	45	200	400	1.0	300	PNP
L2SC3356LT1G	R24	100	12	82	270	10	7000	NPN
L2SC1623QLT1G	L5	150	50	120	270	1.0	180	NPN
L2SC2411KQLT1G	CQ	500	32	120	270	100	250	NPN
L2SC2411KRLT1G	CR	500	32	180	390	100	250	NPN
L2SA1036KQLT1G	HQ	500	32	120	270	10	200	PNP
L2SA1036KRLT1G	HR	500	32	180	390	10	200	PNP
L2SC2412KQLT1G	BQ	150	50	120	270	1.0	180	NPN
L2SC2412KRLT1G	BR	150	50	180	390	1.0	180	NPN
L2SC2412KSLT1G	G1F	150	50	270	560	1.0	180	NPN
L2SA1037AKQLT1G	FQ	150	50	120	270	1.0	140	PNP
L2SA1037AKRLT1G	FR	150	50	180	390	1.0	140	PNP
L2SA1037AKSLT1G	G3F	150	50	270	560	1.0	140	PNP
L2SA812QLT1G	M8	150	50	120	270	1	180	PNP



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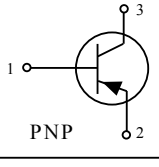

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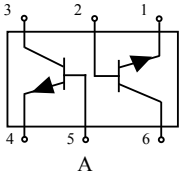
5. SC–88/ SOT–363 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE} @/I_C			f_T (MHz)	Style
				Min	Max	(mA)		
LBC847BDW1T1G	1F	100	45	200	450	2.0	100	A
LBC848CDW1T1G	1L	100	30	420	800	2.0	100	A
LBC857BDW1T1G	3F	100	45	220	475	2.0	100	B
LBC857CDW1T1G	3G	100	45	420	800	2.0	100	B
LBC846BPDW1T1G	BB	100	65	200	475	2.0	100	C
LBC847BPDW1T1G	3F	100	45	200	475	2.0	100	C
UMF23NDW1T1G	F23	150	50	180	390	1.0	140	D
LMBT5551DW1T1G	G1	600	140	80	250	10	–	A

5.1 SC–88/ SOT–363 Surface Mount General Purpose Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T TYP (MHz)	Polarity	Style
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)			
LBC846ADW1T1G	1A	100	65	110/220	2/5	0.25	10/0.5	100	NPN	A
LBC846BDW1T1G	1B	100	65	200/450	2/5	0.25	10/0.5	100	NPN	A
LBC847CDW1T1G	1G	100	45	420/800	2/5	0.25	10/0.5	100	NPN	A
LBC847CPDW1T1G	BG	100	45V	420/800	2/5	0.25	10/0.5		NPN/PNP	A
LBC848BDW1T1G	1K	100	30	200/450	2.0/5.0	0.6	100/5.0	100	NPN	A
LBC848BPDW1T1G	BK	100	30	200/450	2.0/5.0	0.6	100/5.0	100	NPN/PNP	C
LBC848CPDW1T1G	BL	100	30	420/800	2/5	0.25	10/0.5	100	NPN/PNP	C
LBC856BDW1T1G	3B	100	65	220/475	2/5	0.3	10/0.5	100	PNP	C
LBC858BDW1T1G	3K	100	30	220/475	2/5	0.3	10/0.5	100	PNP	C
LBC858CDW1T1G	3L	100	30	420/800	2/5	0.3	10/0.5	100	PNP	C
LMBT4413DW1T1G	K13	600	40	80	10/1.0	0.4	150/15	200	NPN/PNP	C
UMF23NDW1T1G	F23	150	50	180/390	1/6	0.5	50/5	250	NPN/PNP	D



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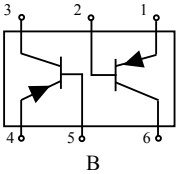

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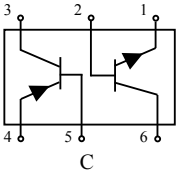

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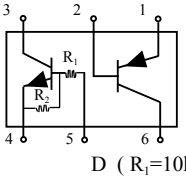
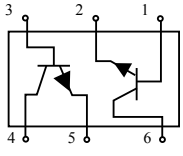


D (R_1=10kΩ R_2=10kΩ)

PACKAGE

6. SC–74 Surface Mount General Purpose Transistors

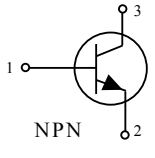
Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		$V_{CE(sat)}$		f_T TYP (MHz)	Polarity
				Min/Max	I_C/V_{CE} (mA)/(Volts)	Max (Volts)	I_C/I_B (mA)		
LSBTH10T1G	H8A		25	60/	4/10	0.5	4/0.4	650	NPN



PACKAGE

7. TO–92 Plastic–Sealed Transistors

Device	I_C (mA)	Pom (mW)	BV_{CBO} (V)	BV_{CEO} (V)	BV_{EBO} (V)	H_{FE}				V_{CE}(sat)			f_T Type (MHz)	Polarity
						Min	Max	V_{CE} (V)	I_C (mA)	(V)	I_C (mA)	I_B (mA)		
L9012	500	625	40	25	5	64	300	1	50	0.6	500	50	150	PNP
L9013	500	625	40	25	5	64	300	1	50	0.6	500	50	150	NPN
L9014	100	400	50	45	5	60	1000	5	1	0.3	100	5	150	NPN
L8050	500	625	40	25	5	85	300	1	50	0.6	500	50	150	NPN
L8550	500	625	40	25	5	85	300	1	50	0.6	500	50	150	PNP
L2SA1015	150	400	50	50	5	70	700	6	2	0.3	100	10	80	PNP
L2SC1815	150	400	60	50	5	70	700	6	2	0.25	100	10	80	NPN
L2SC3199	150	400	50	50	5	70	700	6	2	0.25	100	10	80	NPN



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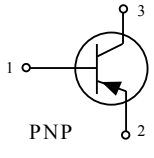


PNP

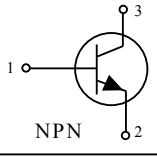
PACKAGE

SWITCHING TRANSISTORS

1. SC–89 Surface Mount General Purpose Switching Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE}		f_T (MHz)	t_d (ns)	t_r (ns)	t_s (ns)	t_f (ns)	Polarity
				Min/Max	I_C (mA)						
LMBT3904TT1G	MA	200	40	100/300	10	300*	35	35	200	50	NPN
LMBT3906TT1G	2A	200	40	100/300	10	250*	35	35	225	75	PNP
LMBT2222ATT1G	1P	600	40	100/–	150	300*	10	25	225	60	NPN

Note*: Min



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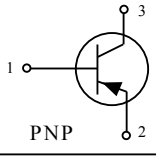
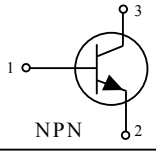


PNP

PACKAGE

2. SC–70/ SOT–323 Surface Mount General Purpose Switching Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE} Min/Max	h_{FE} I_C (mA)	f_T (MHz)	t_d (ns)	t_r (ns)	t_s (ns)	t_f (ns)	Polarity
LMBT3904WT1G	AM	200	40	100/300	1.0	300	35	35	200	50	NPN
LMBT3906WT1G	2A	200	40	100/300	1.0	250	35	35	225	75	PNP
LMBT2222AWT1G	1P	600	40	100/300	150	300	10	25	225	60	NPN
LMBT2907AWT1G	20	600	60	100/–	150	200	10	40	80	30	PNP
LMBT4401WT1G	2X	600	40	80/–	10	250	15	20	225	30	NPN
LMBT4403WT1G	2T	600	40	100/–	10	200	15	20	225	30	PNP



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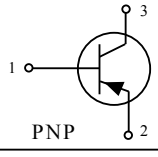
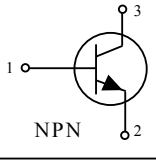


PNP

PACKAGE

3. SOT–23/ TO–236AB Surface Mount General Purpose Switching Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE} Min/Max	h_{FE} I_C/V_{CE} (mA)/(V)	$V_{CE(sat)}$ (Volts)	$V_{CE(sat)}$ I_C/I_B (mA)	f_T (MHz)	t_d (ns)	t_r (ns)	t_s (ns)	t_f (ns)	Polarity
LMBT3906LT1G	2A	200	40	100/300	10/1.0	0.4	50/5.0	250	35	35	225	75	PNP
LMBT4401LT1G	2X	600	40	80	10/1.0	0.4	150/15	250	15	20	225	30	NPN
LMBT4403LT1G	2T	600	40	100	10/1.0	0.4	150/1.5	200	15	20	225	30	PNP
LMBT2222ALT1G	1P	600	40	40	500/10	0.3	150/15	300	10	25	225	60	NPN
LMBT2369ALT1G	1JA	200	15	120	10/1.0	0.2	10/1.0	–	–	–	13	–	NPN
LMBT2369LT1G	M1J	200	15	40/120	10/1.0	0.2	10/1.0	–	–	–	13	–	NPN
LMBT2907ALT1G	2F	600	60	100	10/1.0	0.4	150/15	200	10	40	80	30	PNP
LMBT3904LT1G	1AM	200	40	100/300	10/1.0	0.3	50/5.0	300	35	35	200	50	NPN



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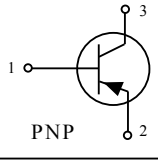


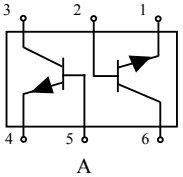
PNP

PACKAGE

4. SC–88/ SOT–363 Surface Mount General Purpose Switching Duals Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	h_{FE} @/I_C			f_T (MHz)	Style
				Min	Max	(mA)		
LMBT2907ADW1T1G	2F	600	60	100	∞	10	200	B
LMBT3904DW1T1G	MA	200	40	100	300	10	300	A
LMBT3906DW1T1G	A2	200	40	100	300	10	250	B
LMBT2222ADW1T1G	XX	600	40	100	300	150	300	A
LMBT3946DW1T1G	46	200	40	100	300	10	250	C

Device	t_d (ns)		t_r (ns)		t_s (ns)		t_f (ns)	
	NPN	PNP	NPN	PNP	NPN	PNP	NPN	PNP
LMBT2907ADW1T1G	35	35	35	35	200	225	50	75
LMBT3904DW1T1G	–	10	–	40	–	80	–	30
LMBT3906DW1T1G	35	–	35	–	200	–	50	–
LMBT2222ADW1T1G	–	35	–	35	–	225	–	75
LMBT3946DW1T1G	10	–	25	–	225	–	60	–



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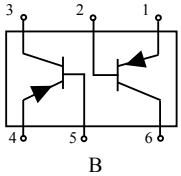

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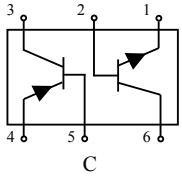

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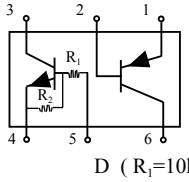


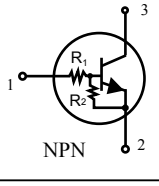
D (R_1=10kΩ R_2=10kΩ)

PACKAGE

BIAS RESISTOR TRANSISTORS

1. SOT–723 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	(mA)			
LDTA114EM3T5G	6A	100	50	35	5	10	10	PNP
LDTA114TM3T5G	6E	100	50	160	5	10	∞	PNP
LDTA114YM3T5G	6D	100	50	80	5	10	47	PNP
LDTA115TM3T5G	99	-100	-50	100	-1	100	–	PNP
LDTA123EM3T5G	6H	100	50	8	5	2.2	2.2	PNP
LDTA123JM3T5G	6M	100	50	80	5	2.2	47	PNP
LDTA124EM3T5G	6B	100	50	60	5	22	22	PNP
LDTA124XM3T5G	6L	100	50	80	5	22	47	PNP
LDTA143EM3T5G	6J	100	50	15	5	4.7	4.7	PNP
LDTA143TM3T5G	6F	100	50	160	5	4.7	∞	PNP
LDTA143ZM3T5G	6K	100	50	80	5	4.7	4.7	PNP
LDTA144EM3T5G	6C	100	50	80	5	47	47	PNP
LDTA144TM3T5G	6T	100	50	100	7	47	–	NPN
LDTC114EM3T5G	8A	100	50	35	5	10	10	NPN
LDTC114TM3T5G	94	100	50	160	5	10	∞	NPN
LDTC114YM3T5G	8D	100	50	80	5	10	47	NPN
LDTC115EM3T5G	8N	100	50	80	5	100	100	NPN
LDTC123EM3T5G	8H	100	50	8	5	2.2	2.2	NPN
LDTC123JM3T5G	8M	100	50	80	5	2.2	47	NPN
LDTC124EM3T5G	8B	100	50	60	5	22	22	NPN
LDTC124XM3T5G	8L	100	50	80	5	22	47	NPN
LDTC143EM3T5G	8J	100	50	15	5	4.7	4.7	NPN
LDTC143TM3T5G	8F	100	50	160	5	4.7	∞	NPN
LDTC143ZM3T5G	8K	100	50	80	5	4.7	47	NPN
LDTC144EM3T5G	8C	100	50	80	5	47	47	NPN
LDTC144TM3T5G	8T	100	50	160	5	47	∞	NPN



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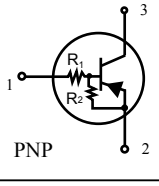
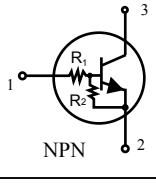


PNP

PACKAGE

2 SC–89 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC123EET1G	N1	100	50	20	–	20	2.2	2.2	NPN
LDTC143EET1G	N2	100	50	20	–	10	4.7	4.7	NPN
LDTC114EET1G	N3	100	50	30	–	5	10	10	NPN
LDTC124EET1G	N4	100	50	56	–	5	22	22	NPN
LDTC144EET1G	N5	100	50	68	–	5	47	47	NPN
LDTC115EET1G	N6	100	50	82	–	5	100	100	NPN
LDTC113ZET1G	N7	100	50	33	–	5	1	10	NPN
LDTC123YET1G	N8	100	50	33	–	10	2.2	10	NPN
LDTC123JET1G	N9	100	50	80	–	10	2.2	47	NPN
LDTC143XET1G	N10	100	50	30	–	10	4.7	10	NPN
LDTC143YET1G	N11	100	50	–	–	5	4.7	22	NPN
LDTC143ZET1G	N12	100	50	80	–	10	4.7	47	NPN
LDTC114WET1G	N13	100	50	24	–	10	10	4.7	NPN
LDTC114YET1G	N14	100	50	68	–	5	10	47	NPN
LDTC124XET1G	N15	100	50	68	–	5	22	47	NPN
LDTC144VET1G	N16	100	50	33	–	5	47	10	NPN
LDTC144WET1G	N17	100	50	56	–	5	47	22	NPN
LDTC113YET1G	N18	100	50	100	600	–	1	–	NPN
LDTC123TKT1G	N19	100	50	100	600	1	2.2	–	NPN
LDTC143TET1G	N20	100	50	100	600	1	4.7	–	NPN
LDTC114TET1G	N21	100	50	100	600	1	10	–	NPN
LDTC124TET1G	N22	100	50	100	600	1	22	–	NPN
LDTC144TET1G	N23	100	50	100	600	1	47	–	NPN
LDTC115TET1G	N24	100	50	100	600	1	100	–	NPN
LDTC125TET1G	N25	100	50	100	600	1	200	–	NPN
LDTC114GET1G	N26	100	50	30	–	5	–	10	NPN
LDTC124GET1G	N27	100	50	68	–	5	–	22	NPN
LDTC144GET1G	N28	100	50	68	–	5	–	47	NPN



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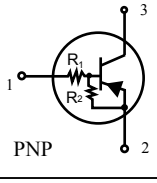
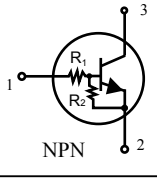


PNP

PACKAGE

2.1 SC–89 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC115GET1G	N29	100	50	68	–	5	–	100	NPN
LDTA123EET1G	P1	100	50	20	–	20	2.2	2.2	PNP
LDTA143EET1G	P2	100	50	20	–	10	4.7	4.7	PNP
LDTA114EET1G	P3	100	50	30	–	5	10	10	PNP
LDTA124EET1G	P4	100	50	56	–	5	22	22	PNP
LDTA144EET1G	P5	100	50	68	–	5	47	47	PNP
LDTA115EET1G	P6	100	50	82	–	5	100	100	PNP
LDTA113ZET1G	P7	100	50	33	–	5	1	10	PNP
LDTA123YET1G	P8	100	50	33	–	10	2.2	10	PNP
LDTA123JET1G	P9	100	50	80	–	10	2.2	47	PNP
LDTA143XET1G	P10	100	50	30	–	10	4.7	10	PNP
LDTA143YET1G	P11	100	50	–	–	5	4.7	22	PNP
LDTA143ZET1G	P12	100	50	80	–	10	4.7	47	PNP
LDTA114WET1G	P13	100	50	24	–	10	10	4.7	PNP
LDTA114YET1G	P14	100	50	68	–	5	10	47	PNP
LDTA124XET1G	P15	100	50	68	–	5	22	47	PNP
LDTA144VET1G	P16	100	50	33	–	5	47	10	PNP
LDTA144WET1G	P17	100	50	56	–	5	47	22	PNP
LDTA113TKT1G	P18	100	50	100	600	1	1	–	PNP
LDTA123TKT1G	P19	100	50	56	–	1	2.2	–	PNP
LDTA143TET1G	P20	100	50	100	600	1	4.7	–	PNP
LDTA114TET1G	P21	100	50	100	600	1	10	–	PNP
LDTA124TET1G	P22	100	50	100	600	1	22	–	PNP
LDTA144TET1G	P23	100	50	100	600	1	47	–	PNP
LDTA115TET1G	P24	100	50	100	600	1	100	–	PNP
LDTA125TET1G	P25	100	50	100	600	1	200	–	PNP
LDTA114GET1G	P26	100	50	30	–	5	–	10	PNP
LDTA124GET1G	P27	100	50	68	–	5	–	22	PNP



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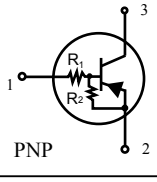
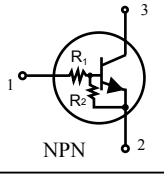


PNP

PACKAGE

2.2 SC–89 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTA144GET1G	P28	100	50	68	–	5	–	47	PNP
LDTA115GET1G	P29	100	50	68	–	5	–	100	PNP
LDTD123TET1G	E1	500	50	100	600	50	2.2	–	NPN
LDTD143TKT1G	E2	500	50	56	–	50	4.7	–	NPN
LDTD114TET1G	E3	500	50	33	–	50	10	–	NPN
LDTD113EET1G	E4	500	50	39	–	50	1	1	NPN
LDTD123EET1G	E5	500	50	47	–	50	2.2	2.2	NPN
LDTD143EET1G	E6	500	50	56	–	50	4.7	4.7	NPN
LDTD114GKT1G	E7	500	50	100	600	100	–	10	NPN
LDTD113ZET1G	E8	500	50	56	–	50	1	10	NPN
LDTD123YET1G	E9	500	50	56	–	50	2.2	10	NPN
LDTD114EET1G	E10	500	50	100	600	50	10	10	NPN
LDTB123TET1G	K1	500	50	33	–	50	2.2	–	PNP
LDTB143TKT1G	K2	500	50	100	600	50	4.7	–	PNP
LDTB114TKT1G	K3	500	50	56	–	50	10	–	PNP
LDTB113EET1G	K4	500	50	39	–	50	1	1	PNP
LDTB123EET1G	K5	500	50	47	–	50	2.2	2.2	PNP
LDTB143EET1G	K6	500	50	56	–	50	4.7	4.7	PNP
LDTB114GKT1G	K7	500	50	–	–	100	–	10	PNP
LDTB113ZET1G	K8	500	50	56	–	50	1	10	PNP
LDTB123YET1G	K9	500	50	56	–	50	2.2	10	PNP
LDTB114EET1G	K10	500	50	100	600	50	10	10	PNP
LDTDG12GPT1G	H1	1000	50	–	–	–	1	22	NPN
LDTBG12GPT1G	H2	1000	50	–	–	–	1	22	PNP



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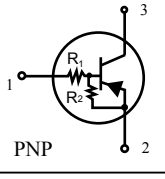

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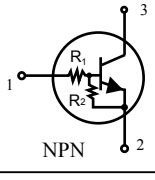
PACKAGE

3. SC–70/ SOT–323 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	(mA)			
LMUN5111T1G	6A	100	50	35	5.0	10	10	PNP
LMUN5112T1G	6B	100	50	60	5.0	22	22	PNP
LMUN5113T1G	6C	100	50	80	5.0	47	47	PNP
LMUN5114T1G	6D	100	50	80	5.0	10	47	PNP
LMUN5115T1G	6E	100	50	160	5.0	10	∞	PNP
LMUN5116T1G	6F	100	50	160	5	4.7	4.7	PNP
LMUN5132T1G	6J	100	50	15	5.0	4.7	4.7	PNP
LMUN5134T1G	6L	100	50	80	5	22	47	PNP
LMUN5211T1G	8A	100	50	35	5.0	10	10	NPN
LMUN5212T1G	8B	100	50	60	5.0	22	22	NPN
LMUN5213T1G	8C	100	50	80	5.0	47	47	NPN
LMUN5214T1G	8D	100	50	80	5.0	10	47	NPN
LMUN5215T1G	8E	100	50	160	5.0	10	∞	NPN
LMUN5216T1G	8F	100	50	160	5.0	4.7	∞	NPN
LMUN5233T1G	8K	100	50	80	5.0	4.7	47	NPN
LMUN5130T1G	6G	100	50	3	5	1	1	PNP
LMUN5131T1G	6H	100	50	8	5	2.2	2.2	PNP
LMUN5133T1G	6K	100	50	80	5	4.7	47	PNP
LMUN5135T1G	6M	100	50	80	5	2.2	47	PNP
LMUN5136T1G	6N	100	50	80	5	100	100	PNP
LMUN5137T1G	6P	100	50	80	5	47	22	PNP
LMUN5230T1G	8G	100	50	3	5	1	1	NPN
LMUN5231T1G	8H	100	50	8	5	2.2	2.2	NPN
LMUN5232T1G	8J	100	50	15	5	4.7	4.7	NPN
LMUN5234T1G	8L	100	50	80	5	22	47	NPN
LMUN5235T1G	8N	100	50	80	5	2.2	47	NPN
LMUN5237T1G	8P	100	50	80	5	47	22	NPN



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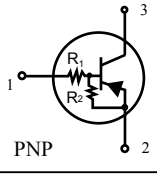

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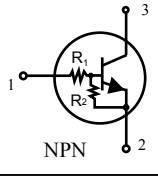
3.1 SC–70/ SOT–323 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC123EWT1G	N1	100	50	20	–	20	2.2	2.2	NPN
LDTC143EWT1G	N2	100	50	20	–	10	4.7	4.7	NPN
LDTC114EWT1G	N3	100	50	30	–	5	10	10	NPN
LDTC124EWT1G	N4	100	50	56	–	5	22	22	NPN
LDTC144EWT1G	N5	100	50	68	–	5	47	47	NPN
LDTC115EWT1G	N6	100	50	82	–	5	100	100	NPN
LDTC113ZWT1G	N7	100	50	33	–	5	1	10	NPN
LDTC123YWT1G	N8	100	50	33	–	10	2.2	10	NPN
LDTC123JWT1G	N9	100	50	80	–	10	2.2	47	NPN
LDTC143XWT1G	N10	100	50	30	–	10	4.7	10	NPN
LDTC143YWT1G	N11	100	50	–	–	5	4.7	22	NPN
LDTC143ZWT1G	N12	100	50	80	–	10	4.7	47	NPN
LDTC114WWT1G	N13	100	50	24	–	10	10	4.7	NPN
LDTC114YWT1G	N14	100	50	68	–	5	10	47	NPN
LDTC124XWT1G	N15	100	50	68	–	5	22	47	NPN
LDTC144VWT1G	N16	100	50	33	–	5	47	10	NPN
LDTC144WWT1G	N17	100	50	56	–	5	47	22	NPN
LDTC113YWT1G	N18	100	50	100	600	–	1	–	NPN
LDTC123TWT1G	N19	100	50	100	600	1	2.2	–	NPN
LDTC143TWT1G	N20	100	50	100	600	1	4.7	–	NPN
LDTC114TWT1G	N21	100	50	100	600	1	10	–	NPN
LDTC124TWT1G	N22	100	50	100	600	1	22	–	NPN
LDTC144TWT1G	N23	100	50	100	600	1	47	–	NPN
LDTC115TWT1G	N24	100	50	100	600	1	100	–	NPN
LDTC125TWT1G	N25	100	50	100	600	1	200	–	NPN
LDTC114GWT1G	N26	100	50	30	–	5	–	10	NPN
LDTC124GWT1G	N27	100	50	68	–	5	–	22	NPN
LDTC144GWT1G	N28	100	50	68	–	5	–	47	NPN



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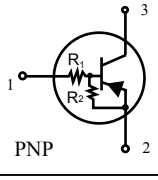

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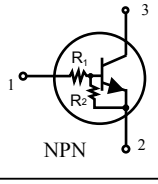
PACKAGE

3.2 SC–70/ SOT–323 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC115GWT1G	N29	100	50	68	–	5	–	100	NPN
LDTA123EWT1G	P1	100	50	20	–	20	2.2	2.2	PNP
LDTA143EWT1G	P2	100	50	20	–	10	4.7	4.7	PNP
LDTA114EWT1G	P3	100	50	30	–	5	10	10	PNP
LDTA124EWT1G	P4	100	50	56	–	5	22	22	PNP
LDTA144EWT1G	P5	100	50	68	–	5	47	47	PNP
LDTA115EWT1G	P6	100	50	82	–	5	100	100	PNP
LDTA113ZWT1G	P7	100	50	33	–	5	1	10	PNP
LDTA123YWT1G	P8	100	50	33	–	10	2.2	10	PNP
LDTA123JWT1G	P9	100	50	80	–	10	2.2	47	PNP
LDTA143XWT1G	P10	100	50	30	–	10	4.7	10	PNP
LDTA143YWT1G	P11	100	50	–	–	5	4.7	22	PNP
LDTA143ZWT1G	P12	100	50	80	–	10	4.7	47	PNP
LDTA114WWT1G	P13	100	50	24	–	10	10	4.7	PNP
LDTA114YWT1G	P14	100	50	68	–	5	10	47	PNP
LDTA124XWT1G	P15	100	50	68	–	5	22	47	PNP
LDTA144VWT1G	P16	100	50	33	–	5	47	10	PNP
LDTA144WWT1G	P17	100	50	56	–	5	47	22	PNP
LDTA113TWT1G	P18	100	50	100	600	1	1	–	PNP
LDTA123TWT1G	P19	100	50	56	–	1	2.2	–	PNP
LDTA143TWT1G	P20	100	50	100	600	1	4.7	–	PNP
LDTA114TWT1G	P21	100	50	100	600	1	10	–	PNP
LDTA124TWT1G	P22	100	50	100	600	1	22	–	PNP
LDTA144TWT1G	P23	100	50	100	600	1	47	–	PNP
LDTA115TWT1G	P24	100	50	100	600	1	100	–	PNP
LDTA125TWT1G	P25	100	50	100	600	1	200	–	PNP
LDTA114GWT1G	P26	100	50	30	–	5	–	10	PNP
LDTA124GWT1G	P27	100	50	68	–	5	–	22	PNP



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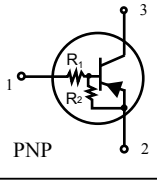

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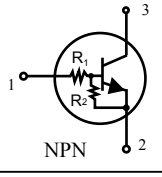
3.3 SC–70/ SOT–323 Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTA144GWT1G	P28	100	50	68	–	5	–	47	PNP
LDTA115GWT1G	P29	100	50	68	–	5	–	100	PNP
LDTD123TWT1G	E1	500	50	100	600	50	2.2	–	NPN
LDTD143TWT1G	E2	500	50	56	–	50	4.7	–	NPN
LDTD114TWT1G	E3	500	50	33	–	50	10	–	NPN
LDTD113EWT1G	E4	500	50	39	–	50	1	1	NPN
LDTD123EWT1G	E5	500	50	47	–	50	2.2	2.2	NPN
LDTD143EWT1G	E6	500	50	56	–	50	4.7	4.7	NPN
LDTD114GWT1G	E7	500	50	100	600	100	–	10	NPN
LDTD113ZWT1G	E8	500	50	56	–	50	1	10	NPN
LDTD123YWT1G	E9	500	50	56	–	50	2.2	10	NPN
LDTD114EWT1G	E10	500	50	100	600	50	10	10	NPN
LDTB123TWT1G	K1	500	50	33	–	50	2.2	–	PNP
LDTB143TWT1G	K2	500	50	100	600	50	4.7	–	PNP
LDTB114TWT1G	K3	500	50	56	–	50	10	–	PNP
LDTB113EWT1G	K4	500	50	39	–	50	1	1	PNP
LDTB123EWT1G	K5	500	50	47	–	50	2.2	2.2	PNP
LDTB143EWT1G	K6	500	50	56	–	50	4.7	4.7	PNP
LDTB114GWT1G	K7	500	50	–	–	100	–	10	PNP
LDTB113ZWT1G	K8	500	50	56	–	50	1	10	PNP
LDTB123YWT1G	K9	500	50	56	–	50	2.2	10	PNP
LDTB114EWT1G	K10	500	50	100	600	50	10	10	PNP
LDTDG12GPWT1G	H1	1000	50	–	–	–	1	22	NPN
LDTBG12GPWT1G	H2	1000	50	–	–	–	1	22	PNP



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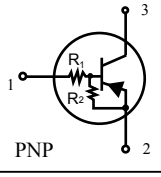

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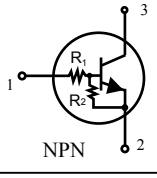
4. SOT–23/ TO–236AB Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	(mA)			
LMUN2111LT1G	A6A	100	50	35	5	10	10	PNP
LMUN2112LT1G	A6B	100	50	60	5	22	22	PNP
LMUN2113LT1G	A6C	100	50	80	5	47	47	PNP
LMUN2114LT1G	A6D	100	50	80	5	10	47	PNP
LMUN2115LT1G	A6E	100	50	160	5	10	∞	PNP
LMUN2116LT1G	A6F	100	50	160	5	4.7	∞	PNP
LMUN2132LT1G	A6J	100	50	15	5	4.7	4.7	PNP
LMUN2133LT1G	A6K	100	50	80	5	4.7	47	PNP
LMUN2134LT1G	A6L	100	50	80	5	22	47	PNP
LMUN2211LT1G	A8A	100	50	35	5	10	10	NPN
LMUN2212LT1G	A8B	100	50	60	5	22	22	NPN
LMUN2213LT1G	A8C	100	50	80	5	47	47	NPN
LMUN2214LT1G	A8D	100	50	80	5	10	47	NPN
LMUN2215LT1G	A8E	100	50	160	5	10	∞	NPN
LMUN2216LT1G	A8F	100	50	160	5	4.7	∞	NPN
LMUN2230LT1G	A8G	100	50	3	5	1	1	NPN
LMUN2231LT1G	A8H	100	50	8	5	2.2	2.2	NPN
LMUN2232LT1G	A8J	100	50	15	5	4.7	4.7	NPN
LMUN2233LT1G	A8K	100	50	80	5	4.7	47	NPN
LMUN2234LT1G	A8L	100	50	80	5	22	47	NPN
LMUN2235LT1G	A8M	100	50	80	5	2.2	47	NPN
LMUN2238LT1G	A8R	100	50	160	5	2.2	∞	NPN
LMUN2241LT1G	A8U	100	50	160	5.0	100	∞	NPN



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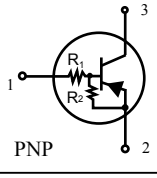

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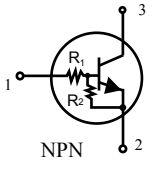
4.1 SOT–23/ TO–236AB Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	(mA)			
LMUN2137LT1G	A6P	100	50	80	5	47	55	PNP
LMUN2237LT1G	A8P	100	50	80	5	47	22	NPN
LMUN2240LT1G	A8T	100	50	160	5	47	∞	NPN
LMUN2135LT1G	A6M	100	50	80	5	2.2	47	PNP
LMUN2130LT1G	A6G	100	50	3	5	1	1	PNP
LMUN2131LT1G	A6H	100	50	8	5	2.2	2.2	PNP
LMUN2136LT1G	A6N	100	50	80	5	100	100	PNP
LMUN2138LT1G	A6R	100	50	160	5	2.2	∞	PNP
LMUN2140LT1G	A6T	100	50	120	5	47	∞	PNP
LMUN2236LT1G	A8N	100	50	80	5	100	100	NPN



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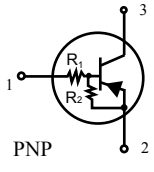

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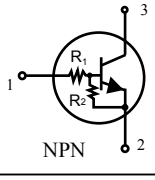
4.2 SOT–23/ TO–236AB Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC123ELT1G	N1	100	50	20	–	20	2.2	2.2	NPN
LDTC143ELT1G	N2	100	50	20	–	10	4.7	4.7	NPN
LDTC114ELT1G	N3	100	50	30	–	5	10	10	NPN
LDTC124ELT1G	N4	100	50	56	–	5	22	22	NPN
LDTC144ELT1G	N5	100	50	68	–	5	47	47	NPN
LDTC115ELT1G	N6	100	50	82	–	5	100	100	NPN
LDTC113ZLT1G	N7	100	50	33	–	5	1	10	NPN
LDTC123YLT1G	N8	100	50	33	–	10	2.2	10	NPN
LDTC123JLT1G	N9	100	50	80	–	10	2.2	47	NPN
LDTC143XLT1G	N10	100	50	30	–	10	4.7	10	NPN
LDTC143YLT1G	N11	100	50	–	–	5	4.7	22	NPN
LDTC143ZLT1G	N12	100	50	80	–	10	4.7	47	NPN
LDTC114WLT1G	N13	100	50	24	–	10	10	4.7	NPN
LDTC114YLT1G	N14	100	50	68	–	5	10	47	NPN
LDTC124XLT1G	N15	100	50	68	–	5	22	47	NPN
LDTC144VLT1G	N16	100	50	33	–	5	47	10	NPN
LDTC144WLT1G	N17	100	50	56	–	5	47	22	NPN
LDTC113YLT1G	N18	100	50	100	600	–	1	–	NPN
LDTC123TLT1G	N19	100	50	100	600	1	2.2	–	NPN
LDTC143TLT1G	N20	100	50	100	600	1	4.7	–	NPN
LDTC114TLT1G	N21	100	50	100	600	1	10	–	NPN
LDTC124TLT1G	N22	100	50	100	600	1	22	–	NPN
LDTC144TLT1G	N23	100	50	100	600	1	47	–	NPN
LDTC115TLT1G	N24	100	50	100	600	1	100	–	NPN
LDTC125TLT1G	N25	100	50	100	600	1	200	–	NPN
LDTC114GLT1G	N26	100	50	30	–	5	–	10	NPN
LDTC124GLT1G	N27	100	50	68	–	5	–	22	NPN
LDTC144GLT1G	N28	100	50	68	–	5	–	47	NPN



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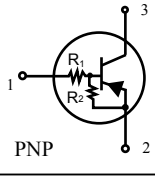
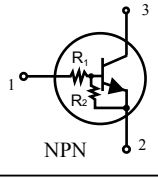


PNP

PACKAGE

4.3 SOT–23/ TO–236AB Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTC115GLT1G	N29	100	50	68	–	5	–	100	NPN
LDTA123ELT1G	P1	100	50	20	–	20	2.2	2.2	PNP
LDTA143ELT1G	P2	100	50	20	–	10	4.7	4.7	PNP
LDTA114ELT1G	P3	100	50	30	–	5	10	10	PNP
LDTA124ELT1G	P4	100	50	56	–	5	22	22	PNP
LDTA144ELT1G	P5	100	50	68	–	5	47	47	PNP
LDTA115ELT1G	P6	100	50	82	–	5	100	100	PNP
LDTA113ZLT1G	P7	100	50	33	–	5	1	10	PNP
LDTA123YLT1G	P8	100	50	33	–	10	2.2	10	PNP
LDTA123JLT1G	P9	100	50	80	–	10	2.2	47	PNP
LDTA143XLT1G	P10	100	50	30	–	10	4.7	10	PNP
LDTA143YLT1G	P11	100	50	–	–	5	4.7	22	PNP
LDTA143ZLT1G	P12	100	50	80	–	10	4.7	47	PNP
LDTA114WLT1G	P13	100	50	24	–	10	10	4.7	PNP
LDTA114YLT1G	P14	100	50	68	–	5	10	47	PNP
LDTA124XLT1G	P15	100	50	68	–	5	22	47	PNP
LDTA144VLT1G	P16	100	50	33	–	5	47	10	PNP
LDTA144WLT1G	P17	100	50	56	–	5	47	22	PNP
LDTA113TLT1G	P18	100	50	100	600	1	1	–	PNP
LDTA123TLT1G	P19	100	50	56	–	1	2.2	–	PNP
LDTA143TLT1G	P20	100	50	100	600	1	4.7	–	PNP
LDTA114TLT1G	P21	100	50	100	600	1	10	–	PNP
LDTA124TLT1G	P22	100	50	100	600	1	22	–	PNP
LDTA144TLT1G	P23	100	50	100	600	1	47	–	PNP
LDTA115TLT1G	P24	100	50	100	600	1	100	–	PNP
LDTA125TLT1G	P25	100	50	100	600	1	200	–	PNP
LDTA114GLT1G	P26	100	50	30	–	5	–	10	PNP
LDTA124GLT1G	P27	100	50	68	–	5	–	22	PNP



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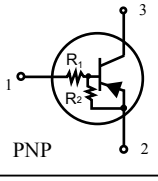
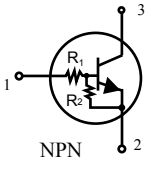


PNP

PACKAGE

4.4 SOT–23/ TO–236AB Surface Mount Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$			R_1 (kΩ)	R_2 (kΩ)	Polarity
				Min	Max	(mA)			
LDTA144GLT1G	P28	100	50	68	–	5	–	47	PNP
LDTA115GLT1G	P29	100	50	68	–	5	–	100	PNP
LDTD123TLT1G	E1	500	50	100	600	50	2.2	–	NPN
LDTD143TLT1G	E2	500	50	56	–	50	4.7	–	NPN
LDTD114TLT1G	E3	500	50	33	–	50	10	–	NPN
LDTD113ELT1G	E4	500	50	39	–	50	1	1	NPN
LDTD123ELT1G	E5	500	50	47	–	50	2.2	2.2	NPN
LDTD143ELT1G	E6	500	50	56	–	50	4.7	4.7	NPN
LDTD114GLT1G	E7	500	50	100	600	100	–	10	NPN
LDTD113ZLT1G	E8	500	50	56	–	50	1	10	NPN
LDTD123YLT1G	E9	500	50	56	–	50	2.2	10	NPN
LDTD114ELT1G	E10	500	50	100	600	50	10	10	NPN
LDTB123TLT1G	K1	500	50	33	–	50	2.2	–	PNP
LDTB143TLT1G	K2	500	50	100	600	50	4.7	–	PNP
LDTB114TLT1G	K3	500	50	56	–	50	10	–	PNP
LDTB113ELT1G	K4	500	50	39	–	50	1	1	PNP
LDTB123ELT1G	K5	500	50	47	–	50	2.2	2.2	PNP
LDTB143ELT1G	K6	500	50	56	–	50	4.7	4.7	PNP
LDTB114GLT1G	K7	500	50	–	–	100	–	10	PNP
LDTB113ZLT1G	K8	500	50	56	–	50	1	10	PNP
LDTB123YLT1G	K9	500	50	56	–	50	2.2	10	PNP
LDTB114ELT1G	K10	500	50	100	600	50	10	10	PNP
LDTDG12GPLT1G	H1	1000	50	–	–	–	1	22	NPN
LDTBG12GPLT1G	H2	1000	50	–	–	–	1	22	PNP



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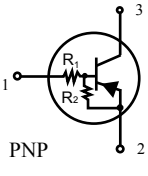
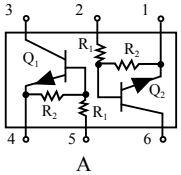


PNP

PACKAGE

5. SC–88/ SOT–363 Surface Mount Dual Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Style
				Min	(mA)			
LMUN5211DW1T1G	7A	100	50	35	5.0	10	10	A
LMUN5212DW1T1G	7B	100	50	60	5.0	22	22	A
LMUN5213DW1T1G	7C	100	50	80	5.0	47	47	A
LMUN5214DW1T1G	7D	100	50	80	5.0	10	47	A
LMUN5215DW1T1G	7E	100	50	160	5.0	10	∞	A
LMUN5216DW1T1G	7F	100	50	160	5.0	4.7	∞	A
LMUN5111DW1T1G	0A	100	50	35	5.0	10	10	B
LMUN5116DW1T1G	0F	100	50	160	5.0	4.7	∞	B
LMUN5132DW1T1G	0J	100	50	15	5.0	4.7	4.7	B
LMUN5311DW1T1G	11	100	50	35	5.0	10	10	C
LMUN5312DW1T1G	12	100	50	60	5.0	22	22	C
LMUN5314DW1T1G	14	100	50	80	5.0	10	47	C
LMUN5315DW1T1G	15	100	50	160	5.0	10	∞	C
LMUN5112DW1T1G	0B	100	50	60	5	22	22	B
LMUN5113DW1T1G	0C	100	50	80	5	47	47	B
LMUN5114DW1T1G	0D	100	50	80	5	10	47	B
LMUN5115DW1T1G	0E	100	50	160	5	10	∞	B



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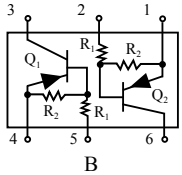

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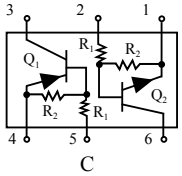
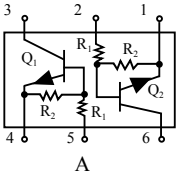


C

PACKAGE

5.1 SC–88/ SOT–363 Surface Mount Dual Bias Resistor Transistors

Device	Device Marking	I_C (mA)	V_{CEO} (V)	$h_{FE}@I_C$		R_1 (kΩ)	R_2 (kΩ)	Style
				Min	(mA)			
LMUN5130DW1T1G	0G	100	50	3	5	1	1	B
LMUN5131DW1T1G	0H	100	50	8	5	2.2	2.2	B
LMUN5133DW1T1G	0K	100	50	80	5	4.7	47	B
LMUN5134DW1T1G	0L	100	50	80	5	22	47	B
LMUN5135DW1T1G	0M	100	50	80	5	2.2	47	B
LMUN5136DW1T1G	0N	100	50	80	5	100	100	B
LMUN5137DW1T1G	0P	100	50	80	5	47	22	B
LMUN5230DW1T1G	7G	100	50	3	5	1	1	A
LMUN5231DW1T1G	7H	100	50	8	5	2.2	2.2	A
LMUN5232DW1T1G	7J	100	50	15	5	4.7	4.7	A
LMUN5233DW1T1G	7K	100	50	80	5	4.7	47	A
LMUN5234DW1T1G	7L	100	50	80	5	22	47	A
LMUN5235DW1T1G	7M	100	50	80	5	2.2	47	A
LMUN5236DW1T1G	7N	100	50	80	5	100	100	A
LMUN5237DW1T1G	7P	100	50	80	5	47	22	A
LMUN5313DW1T1G	13	100	50	80	5	47	47	C
LMUN5316DW1T1G	16	100	50	160	5	4.7	∞	C
LMUN5330DW1T1G	30	100	50	3	5	1	1	C
LMUN5331DW1T1G	31	100	50	8	5	2.2	2.2	C
LMUN5332DW1T1G	32	100	50	15	5	4.7	4.7	C
LMUN5333DW1T1G	33	100	50	80	5	4.7	47	C
LMUN5334DW1T1G	34	100	50	80	5	22	47	C
LMUN5335DW1T1G	35	100	50	80	5	2.2	47	C
LMUN5336DW1T1G	36	100	50	80	5	100	100	C



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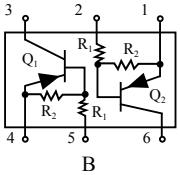

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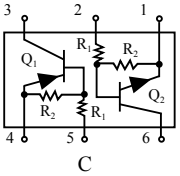
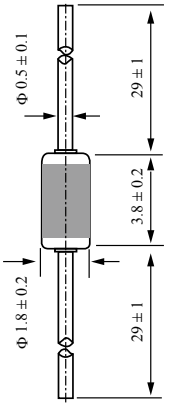


C

PACKAGE

BI-DIRECTIONAL TRIGGER DIODES

Symbol	Parameter	Test Condition	Device	Min	Typ	Max	Unit	Package(mm)
V_{BO}	Breakdown Voltage	See Fig 1	DB-3 DB-4 DB-6	28 35 56	32 40 60	36 45 70	V	
$\lvert+V_{BO}\rvert - \lvert-V_{BO}\rvert$	Breakover Voltage Symmetry	See Fig 1	DB-3 DB-4 DB-6			3 3 4	V	
$\lvert \pm \Delta V \rvert$	Dynamic Breakback Voltage	$\Delta I = \lvert I_{BO}$ to I_F=10mA $\rvert$ See Fig 1	DB-3 DB-4 DB-6	5 5 10			V	
V_O	Output Voltage	See Fig 2		5		100	V	
I_{BO}	Breakdown Current				1.5		μA	
t_r	Rise Time	See Fig 3				10	μS	
I_B	Leakage Current	Vm=0.5 V_{BO}(Max) See Fig 1					μA	



DO-35
(mm)

LIMITING VALUES

Symbol	Parameter		Value		Unit
P_C	Power Dissipation	t_a = 50°C	150		mW
I_{Fmax}	Peak Pulse Current	t_p=10 μS 120pps $T_a \leq 40°C$	DB-3 DB-4 DB-6	2.0 2.0 16	A
T_r T_J	Storage and Operating Junction Temperatuer Range		40 to 125 40 to 110		°C

DO–35 Glass–Sealed Bi–Directional Trigger Diodes

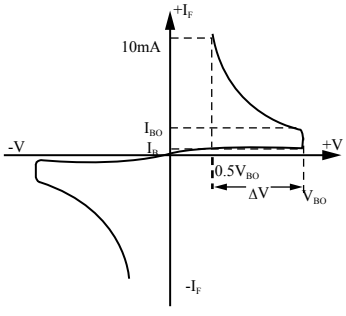


FIG-1 I - V
Current - voltage characterisitics

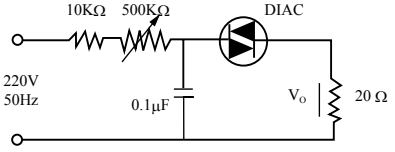


FIG-2
Test circuit for output voltage

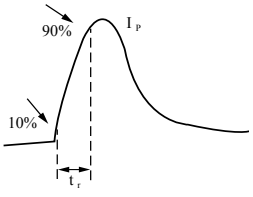


FIG-3
Test circuit see diagram 2.
Adjust R for I=0.5A

load up to 1500 watts

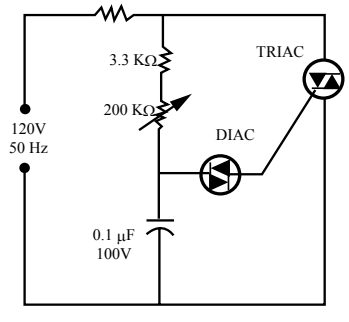


FIG-4
Typical DIAC-TRIAC full-wave Phase control

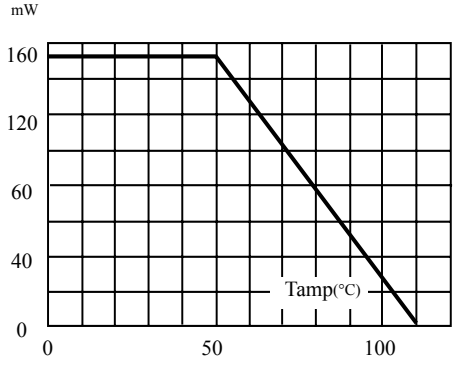


FIG-5
Power dissipation versus ambient temperature(maximum values)

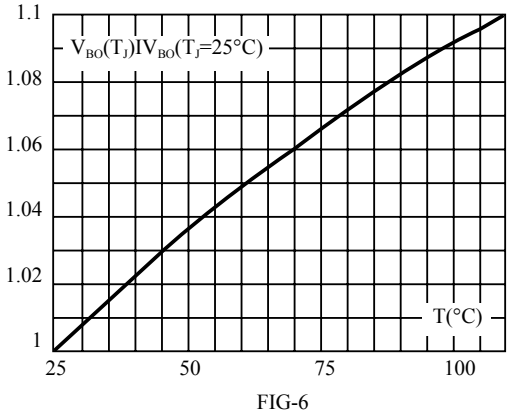


FIG-6
Relative variation of V_{BO} versus junction temperature
(typical values)

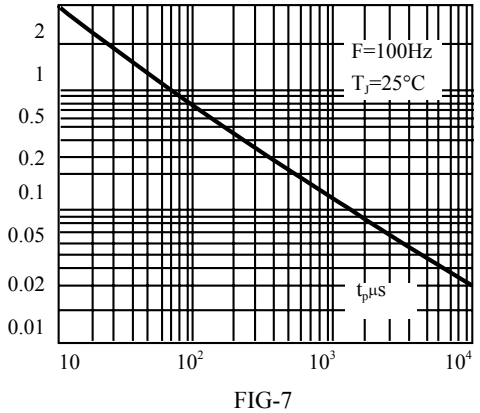
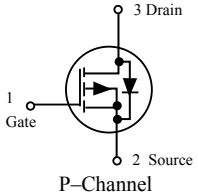


FIG-7
Peak pulse Current versus pulse duration
(maximum values)

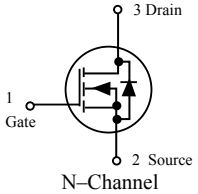
MOS FETs

1. SOT–323/ SC–70 Surface Mount MOS FETs

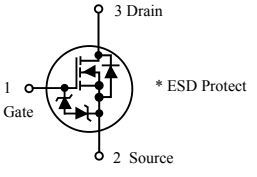
Device	Marking	V_{DSS} (V)	I_D Cont (mA)	$R_{DS(on)}$		$V_{GS(th)}$		Switching Time		Polarity
				Max (Ω)	I_D (mA)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
LRK7002WT1G	6C	60	115	7.5	50	1	2.5	–	–	N–Channel
LBSS138WT1G	J1	50	200	10	200	0.5	1.5	–	–	N–Channel
LBSS84WT1G	PD	50	100	10	100	0.9	2.0	–	–	P–Channel
L2N7002WT1G	6C	60	500	7.5	50	1.0	2.5	7.0	11	N-Channel



P–Channel



N–Channel

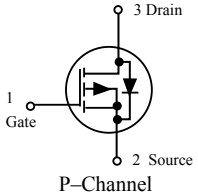


LRK7002WT1G

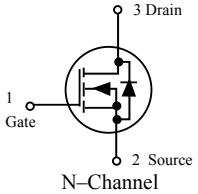
PACKAGE

2. SOT–23/ TO–236AB Surface Mount MOS FETs

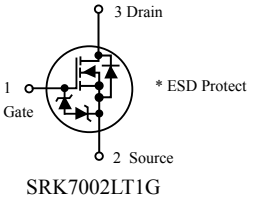
Device	Device Marking	V_{DSS} (V)	I_D Cont (mA)	$R_{DS(on)}$		$V_{GS(th)}$		Switching Time		Polarity
				Max (Ω)	I_D (mA)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
LBSS84LT1G	PD	50	100	10	100	0.8	2.0	2.5	16	P–Channel
LBSS123LT1G	SA	100	170	6.0	100	0.8	2.8	20	40	N–Channel
LBSS138LT1G	J1	50	200	3.5	200	0.5	1.5	20	20	N–Channel
L2N7002LT1G	702	60	115	7.5	500	1.0	2.5	20	40	N–Channel
SRK7002LT1G*	RK	60	115	7.5	50	1.0	2.5	20	30	N–Channel
L2N7002SLT1G	703	60	115	2.5	50	1.0	2.0	7	11	N–Channel



P–Channel



N–Channel

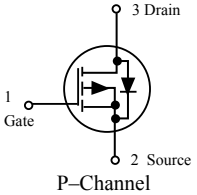


SRK7002LT1G

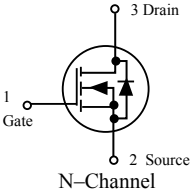
PACKAGE

2.1 SOT–23/ TO–236AB Surface Mount MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on)		R_{DS}(on)		V_{GS}(th)		Switching Time		Polarity
			Max (Ω)	I_D (A)	Max (Ω)	I_D (A)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
LP2301LT1G	-20	-2.3	0.10	-2.8	0.15	-2.0	-0.45	-0.95	17.28	36.05	P-Channel
LN2302LT1G	20	2.3	0.06	2.8	0.115	2.0	0.65	1.2	6.16	16.61	N-Channel
LN2312LT1G	20	4.9	0.031	5.0	0.047	4.0	0.4	1.0	15.0	48.0	N-Channel
LN2306LT1G	20	5.3	0.03	5.5	0.035	5.3	0.5	–	6.0	18.4	N-Channel
LP2307LT1G	-16	-4.0	0.06	-4.0	0.07	-3.0	–	-1.0	8.0	54.0	P-Channel
LN4501LT1G	20	3.2	0.08	3.6	0.105	3.1	0.65	1.2	6.5	12.0	N-Channel



P–Channel

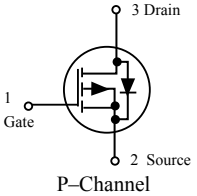


N–Channel

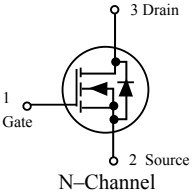
PACKAGE

2.2 SOT–23/ TO–236AB Surface Mount MOS FETs

Device	BV_{DSS} (V)	I_D (A)	V_{GS} (V)	Vth (V)	R_{DS}(ON) Max(mΩ)			Polarity
					10V	4.5V	2.5V	
L4N02LT1G	20	4	±12	0.6(min)	–	45	80	N-Channel
L3P03LT1G	-30	-3	±20	-1(min)	80	140	–	P-Channel
LP4101LT1G	-20	-2.3	±8	-0.45(min)	–	100	150	P-Channel



P–Channel

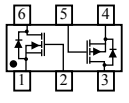


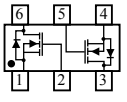
N–Channel

PACKAGE

3. SC–88/ SOT-363 Surface Mount MOS FETs

Device	Marking	V_{DSS} (V)	I_D Cont (mA)	$R_{DS(on)}$		$V_{GS(th)}$		Switching Time		Polarity
				Max (Ω)	I_D (mA)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
L2N7002DW1T1G	702	60	115	7.5	50	1.0	2.5	20	40	N-Channel
LBSS8402DW1T1G	KNP	60	115	7.5	50	1.0	2.5	7.0	11	N-Channel P-Channel

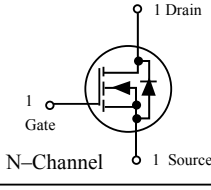


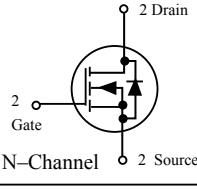


PACKAGE

4. SC–74 SOT–23–6 Surface Mount MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on)		R_{DS}(on)		V_{GS}(th)		Switching Time		Polarity
			Max (Ω)	I_D (A)	Max (Ω)	I_D (A)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
LN9926LT1G	20	6	0.03	6.0	0.04	5.2	0.6	1.5	8.1	21.85	Dual-N-Channel



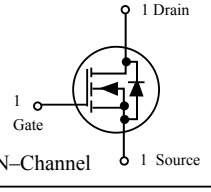
N–Channel


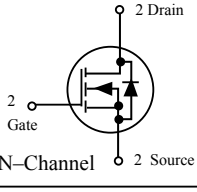
N–Channel


PACKAGE

5. SOP–8 Power MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on)		R_{DS}(on)		V_{GS}(th)		Switching Time		Polarity
			Max (Ω)	I_D (A)	Max (Ω)	I_D (A)	Min (V)	Max (V)	$t_{d(on)}$ (ns)	$t_{d(off)}$ (ns)	
LN9926	20	4.6	0.028	4	0.04	2	0.5	–	5	26.2	Dual-N-Channel



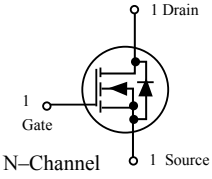
N–Channel


N–Channel

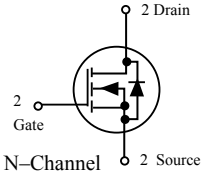
PACKAGE

6. TSSOP–8 Power MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	V_{GS}(th) Min (V)	V_{GS}(th) Max (V)	Switching Time $t_{d(on)}$ (ns)	Switching Time $t_{d(off)}$ (ns)	Polarity
LN9926L	20	4.6	0.028	4	0.04	2	0.5	–	5	26.2	Dual-N-Channel



N–Channel

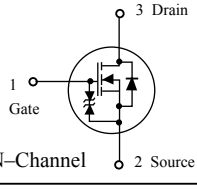


N–Channel


PACKAGE

7. TO–92 Power MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	V_{GS}(th) Min (V)	V_{GS}(th) Max (V)	Switching Time $t_{d(on)}$ (ns)	Switching Time $t_{d(off)}$ (ns)	Polarity
L1N60A	600	0.3	15	0.4	–	–	3	4.5	5.5	13	N-Channel

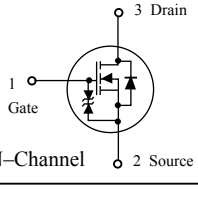


N–Channel


PACKAGE

8. TO-220 Power MOS FETs

Device	V_{DSS} (V)	I_D Cont (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	R_{DS}(on) Max (Ω)	R_{DS}(on) I_D (A)	V_{GS}(th) Min (V)	V_{GS}(th) Max (V)	Switching Time $t_{d(on)}$ (ns)	Switching Time $t_{d(off)}$ (ns)	Polarity
L2N600	600	2	5	1	–	–	2	4	18	50	N-Channel
L4N600	600	4	2.5	2	–	–	2	4	25	75	N-Channel
L75N75	75	75	0.013	37.5	–	–	2	4	27	75	N-Channel
LIRFZ44N	55	49	0.022	25	–	–	2	4	7.3	47	N-Channel



N–Channel

INTEGRATED CIRCUIT

1. DC-DC

Device	Package	Description					
		Mode	V_{IN} (V)	Frequency (MHz)	Efficiency(%)	I_{OMAX} (A)	V_{OUT} (V)
LR8301	SOT23-5	PFM;STEP-UP(BOOST)	≥0.9	0.1	85	1.0	1.8~6.5(0.1V Step)
LR2596	TO220(263)-5	PWM;STEP-DOWN(BUCK)	4.5~40	0.15	73~90	3.0	3.3/5/12 or Adj
LR34063	DIP(SOP)8	STEP-UP/STEP-DOWN/INVERTING	3~40	0.1	STEP-UP:87.7 STEP-DOWN:83.7 INVERTING:62.2	1.5	Adj

2. AC-DC

Device	Package	Description					
		V_{IN}(V)	Frequency(kHz)	Standby P_D(W)	L_{LIM}(mA)	V_{SW}(V)	EMI (dBμV)
LR2257	SOP8	9~12	70	< 0.3	400	> 400V	<40

3. Amplifiers and Comparator

Device	Package	Description						
		Mode	I_{IB} (nA)	DC Gain(dB)	V_{OPMAX}(±V)	PSRR (dB)	I_{IO} (nA)	V_{IO} (mV)
LR4558	SOP8/DIP8	High-Performance Op-Amp	30	100	18	76	5	2
LR324	SOP14/DIP14	Quad Op-Amp	45	100	15 or single 30	100	5	2
LR358	SOP-8/DIP-8	Dual Op-Amp	45	100	16 or single 32	100	3	2
LR393	SOP-8/DIP-8	Dual Comparator	25	106	18 or single 36		±5	±1
LR339	SOP-14/DIP-14	Quad Comparator	25	106	18 or single 36		±5	±2

4. LED Driver

Device	Package	Description				
		Serial LEDs	V_{IN}(V)	Frequency (MHz)	Efficiency(%)	OVP
LR246	SOT23-6	2~4	2.5~10	1.2	85	OK
LR256	SOT23-5	2~4	2.5~10	1.2	85	NC

5. Voltage Reference

Device	Package	Description				
		I_{KMAX} (mA)	V_{REF} (V)	V_O (V)	$\Delta V_O/V_O$ (±%)	TOP (°C)
LR431ALT1G	SOT23	150	2.5	2.5~36	0.5	0~70
LR431BLT1G	SOT23	150	2.5	2.5~36	1	0~70
LR431ATLT1G	SOT23	150	2.5	2.5~36	0.5	-40~85
LR431BTLT1G	SOT23	150	2.5	2.5~36	1	-40~85
LR431APTLT1G	SOT23	150	2.495	2.495~36	0.5	-40~85
LR431BPTLT1G	SOT23	150	2.495	2.495~36	1	-40~85
LTL431ALT1G	SOT23	150	2.5	2.5~36	0.5	0~70
LTL431BLT1G	SOT23	150	2.5	2.5~36	1	0~70

5.1. Voltage Reference

Device	Package	Description				
		I_{KMAX} (mA)	V_{REF} (V)	V_O (V)	$\Delta V_O/V_O$ (±%)	TOP (°C)
LR431A	TO92	150	2.5	2.5~36	0.5	0~70
LR431B	TO92	150	2.5	2.5~36	1	0~70

6. V-Detector/Reset

Device	Package	Description				
		Mode	V_{IN}	$\Delta V_O/V_O$ (±%)	Reset Pulse Width(ms)	I_{SS} (μA)
LR8808	SOT23	Undervoltage Reset	1.5~6.0	2	No	1
LR8809	SOT23	Undervoltage Reset	2.32~4.63	1.5	1/20/100/140	1

7. Charge Pump

Device	Package	Description				
		LEDs	Mode	Efficiency	Analog Contral	Digit Contral
LR8204	QFN16(3*3)	1~4	1×/1.5×/2×	90%	PWM	32 levels

8. Low Dropout Voltage Regulator

Device	Package	Description					
		V_{OUT}	25°C Tol (±%)	I_{OMAX}(mA)	V_{INMAX}(V)	PSRR(dB)	ESD
LR8801	SOT23-5	2.5V/2.85V/3.3V	2	150	6.5	70	NC
LR8802	SOT23-5	2.5V/2.85V/3.3V	2	250	6.5	70	NC
LR3988	SOT23-5	1.5~6V(0.1V Step)	2	150	6.5	60	2KV
LR3989	SOT23-5	1.5~6V(0.1V Step)	2	300	6.5	60	2KV
LR6200	SOT23-5	1.5~5V(0.1V Step)	2	300	6	70	NC
LR6209	SOT23-3(-5)	1.4V~6.0V(0.1V Step)	2	250	10	60	2KV
LR1117	TO220/252/SOT-223	Fixed and Adjustable	2	1000	18	72	NC
LR1084	TO220/252/263-3	Fixed and Adjustable	2	5000	12	72	2KV

9. Dual Low Dropout Voltage Regulator

Device	Package	CH	Description					
			V_{OUT}	25°C Tol (±%)	I_{OMAX}(mA)	V_{INMAX}(V)	PSRR(dB)	ESD
L6401	SOT23-6	VR1 VR2	1.3~6V(0.05V Step)	2	300	10	70	–

9. One-Gate Logic

An Introduction to One Gate Logic

Initially, One–Gate devices were popularized in Japan for use in hand held applications. They were originally designed to "fix" small, simple problems, either with the logic, for adding buffering between circuits, or to add signal drive. System designers outside of Japan never fully appreciated the value of these tiny devices, and the role they could play in reducing board area by applying logic signals, just where it was needed.

Although several package variations exist, today, the most current One Gate devices are packaged in the industry standard SC –88A/SOT353 package. This package measures approximately 2.0 X 2.1 mm, or less than 4.5 mm2. By comparison, a standard 14 lead SOIC is over 50 mm2. 4 one–gate devices take up about 1/3 the area of a conventional SOIC package. Even more importantly, because of the small package size, one–gate functions allow the designer significant flexibility in signal line routing.

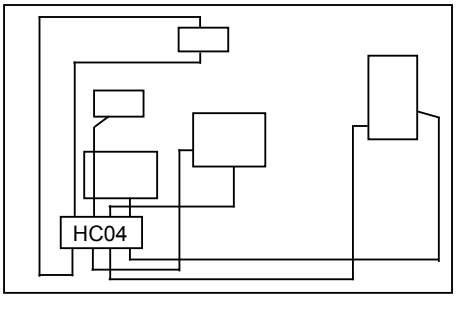
In general, the simpler the board layout, the more likely the circuit will function properly the first time. If a designer is using an ordinary four–gate, TSSOP, logic IC and needs all four gates he must first find the board space to place a 14–pin package (32 mm^2). He will then begin the task of routing to and from the device. In the event that the inputs are coming from different places around the board, the routing becomes difficult. In addition, the longer the signal lines, the higher the chances for EMI type of problems. In cases where logic functions are required in 2 or 3 different locations, the routing issue becomes even more complex. In a second case, a standard logic device has 4 gates, but the designer needs 2 or more different logic forms, i.e. AND, NAND, XOR etc. Of course the designer could use several gates to create the correct logic, but that would defeat the purpose of a multi–gate logic device. With One Gates, the designer can have a 2–Input NAND gate in one corner and a 2 –Input XOR in another corner. The inputs can be close to the source, so routing is simplified.

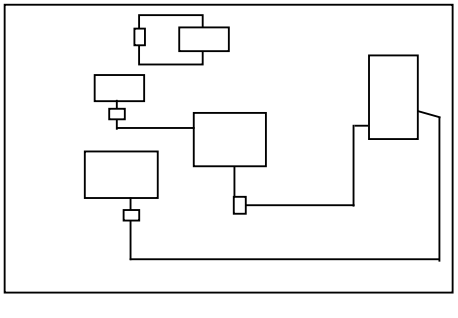
One–Gate logic products can be derived from almost any standard multi–gate family of products. LRC, has selected the 74VHC CMOS logic family as the preferred technology for One Gate. VHC has extremely desirable characteristics to make it ideal for One Gates. It is usable over a wide range of voltages, with fully guaranteed operation from 2.0 to 6.0 volts. Like other CMOS logic families, VHC slows down somewhat at the lower voltages, but non the less, still remains one of the faster logic families. VHC is over–voltage tolerant (OVT), at its inputs, which permits the designer to operate the device at a low voltage, say 2.5 volts, but yet interface with 5.0 volt logic. Typical propagation delays of less than 5.0 nsecs, along with extremely low quiescent power, make the VHC technology very attractive for many applications.

Open drain**:** In addition to the offering of traditional, standard logic functions, LRC will be offering a broad portfolio of open drain devices, allowing logic level translation to or from almost any logic level. The designer only needs to operate the One Gate from the input Vcc voltage to be translated, and connect the output to a pull–up resistor to the output voltage. The output will be translated to the new voltage. This voltage may be any level between 1.5 and 7.0 volts. Complex logic may also be created using a few open drain one gates. Two or more devices may be wire OR'd by simply connecting their O.D. outputs together, creating more complex logic, without taking up much space. Complex logic can be created very simply and at very low power consumption. This can be especially useful when trying to use a standard circuit in a special application. Since the one gate devices may each be different, the possibilities are nearly limitless.

Conclusion: One–gate logic devices offer the designer several new options that allow for cleaner simpler board layout, interfacing different voltage levels, and unique combinational logic forms taking up almost no board space and drawing very small amounts of power. LRC has a wide offering of unique One–gate logic devices, with more than 20 unique devices being offered in the early part of the year 2000. All the devices are available in the industry standard SC–88A/SOT353 package. Most device types are available as both Standard CMOS level or TTL compatible input, many with Open Drain options, and all offering over–voltage tolerance (OVT) at the input.

Simplified Routing





One - Gate Logic

Description			
V_{CC} (V)	V_{DD} (V) for OD	Tpd (ns)	ESD (kV)
3.3~5	≤7	2.5~4.5	2

1. CMOS input logic

Device	Package	Type
L74VHC1G00	SC88A	2-Input NAND Gate
L74VHC1G02	SC88A	2-Input NOR Gate
L74VHC1G04	SC88A	Inverter
L74VHC1G08	SC88A	2-Input AND Gate
L74VHC1G14	SC88A	Schmitt-Trigger Inverter
L74VHC1G32	SC88A	2-Input OR Gate
L74VHC1G50	SC88A	Noninverting Buffer
L74VHC1G66	SC88A	Analog Switch
L74VHC1G86	SC88A	2-Input Exclusive OR Gate
L74VHC1G125	SC88A	3-State Non-Inverting Buffer
L74VHC1G132	SC88A	2-Input NAND Schmitt-Trigger
L74VHC1GU04	SC88A	Unbuffered Inverter

2. CMOS input logic with Open Drain Output

Device	Package	Type
L74VHC1G01	SC88A	2-Input NAND Gate with Open Drain Output
L74VHC1G03	SC88A	2-Input NOR Gate with Open Drain Output
L74VHC1G05	SC88A	Inverter with Open Drain Output
L74VHC1G07	SC88A	Noninverting Buffer with Open Drain Output
L74VHC1G09	SC88A	2-Input AND Gate with Open Drain Output
L74VHC1G135	SC88A	2-Input NAND Schmitt-Trigger with Open Drain Output

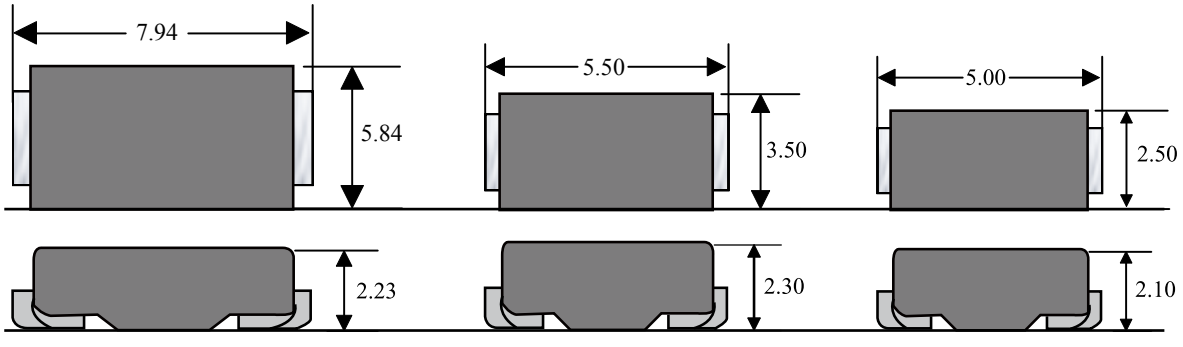
3. CMOS/TTL input compatible logic

Device	Package	Type
L74VHC1GT00	SC88A	2-Input NAND Gate/CMOS Logic Level Shifter
L74VHC1GT02	SC88A	2-Input NOR Gate/CMOS Logic Level Shifter
L74VHC1GT04	SC88A	Inverting Buffer/CMOS Logic Level Shifter
L74VHC1GT08	SC88A	2-Input AND Gate/CMOS Logic Level Shifter
L74VHC1GT14	SC88A	Schmitt-Trigger Inverter/CMOS Logic Level Shifter
L74VHC1GT32	SC88A	2-Input OR Gate/CMOS Logic Level Shifter
L74VHC1GT50	SC88A	Noninverting Buffer/CMOS Logic Level Shifter
L74VHC1GT66	SC88A	Analog Switch/CMOS Logic Level Shifter
L74VHC1GT86	SC88A	2-Input Exclusive OR Gate/CMOS Logic Level Shifter

4. CMOS/TTL input compatible logic with Open Drain Output

Device	Package	Type
L74VHC1GT01	SC88A	2-Input NAND Gate with Open Drain Output/CMOS Logic Level Shifter
L74VHC1GT03	SC88A	2-Input NOR Gate with Open Drain Output/CMOS Logic Level Shifter
L74VHC1GT05	SC88A	Inverter with Open Drain Output/CMOS Logic Level Shifter
L74VHC1GT07	SC88A	Noninverting Buffer with Open Drain Output/CMOS Logic Level Shifter
L74VHC1GT09	SC88A	2-Input AND Gate with Open Drain Output/CMOS Logic Level Shifter

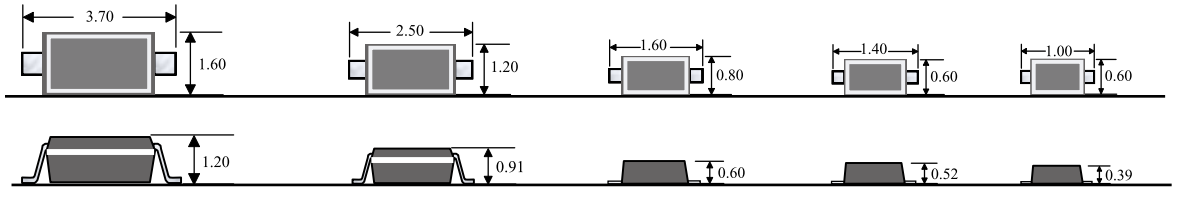
PARTIAL SMD PACKAGE OUTLINE COMPARISON



SMC
(DO214AB)

SMB
(DO214AA)

SMA
(DO214AC)
(SOD106)



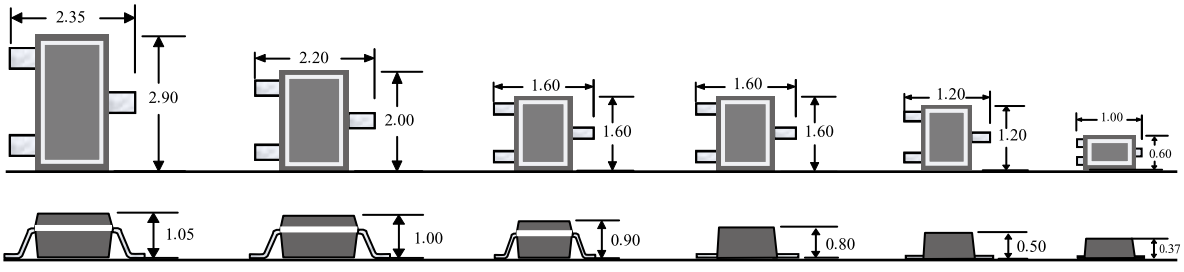
SOD-123
(SC-77)
(SMD-2)
(PMDU)

SOD-323
(SC-76)
(UMD-2)
(URP)
(USC)

SOD-523
(SC-79)
(EMD-2)
(UFP)
(ESC)
(SS-MINI-2)

SOD-723
(VMD-2)

SOD-923
(VMN-2)



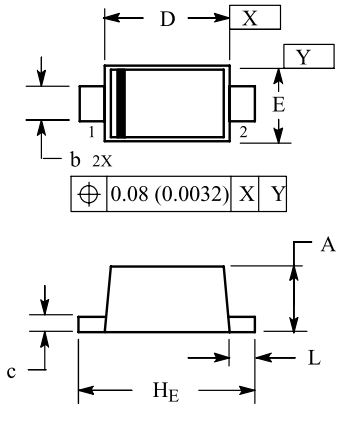
SOT-23	SC-70	SC-75	SC-89	SOT-723	SOT-1123
(SC-59)	(SOT-323)	(SOT-523)	(SOT-523)	(VMT-3)	
(SOT-346)	(USM)	(SOT-416)	(SOT-490)	(SSS-MINI-3)	
(SMT-3)	(S-MINI-3)	(EMT-3)	(EMT-3)	(VSM)	
(MPAK)	(UMT-3)	(SS-MINI-3)	(FL/ESM)	(TSFP-3)	
(MINI-3)	(CMPAK)	(SMPAK)	(SS-MINI-3)		
(S-MINI)					
(MICRO-3)					

PARTIAL PACKAGE COMPARISON TABLE

EIAJ	IEC	JEDEC	0THER	LRC
SC-77	SOD-123		PMDU,SMD2	SOD-123
SC-76	SOD-323		UMD2,URP,USC	SOD-323
SC-79	SOD-523		EMD2,UFP,SS-MINI2,ESC	SOD-523
	SOD-723		VMD2	SOD-723
	SOD-923		VMN2	SOD-923
SC-70	SOT-323	USM,S-MINI3	UMT3,CMPAK	SC-70
			SPT	SC-72
SC-74	SOT-457	TSOP6	SMT6,SC-59-6,SOT-23-6	SC-74
SC-74A		TSOP5	SMT5,SC-59-5,SOT-23-5	SC-74A
SC-75,SC-90	SOT-416	SOT-523,SS-MINI3,SSM	EMT3,SMPAK	SC-75
			EMT3/SOT-416	SC-75A
SC-88	SOT-363		UMT6,SC-70-6	SC-88
SC-88A	SOT-353		UMT5,SC-70-5	SC-88A
SC-89	SOT-490	SOT-523,SS-MINI3	EMT3,FL/ESM	SC-89
		TO-214AC	SOD-106	SMA
		TO-214AA		SMB
		TO-214AB		SMC
SC-59	SOT-346		SMT3,MPAK,MINI3,S-MINI,MICRO3	SOT-23
SC-70		USM,S-MINI3	UMT3,CMPAK	SOT-323
	SOT-553		EMT5,SOT-665	SOT-553
	SOT-563		EMT6,SOT-666	SOT-563
	SOT-723		VMT3,3SS-MINI3,VSM,TSFP-3	SOT-723
			DPAK	TO-252
SC-43	SOT-54	TO-226AA	SPT	TO-92
			MINIMELF/SOD80/DO-213AA	LL-34

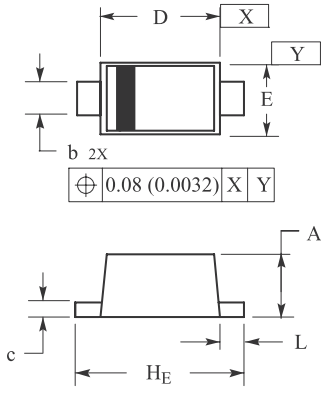
DEVICE DIMENSION

1. SOD– 923



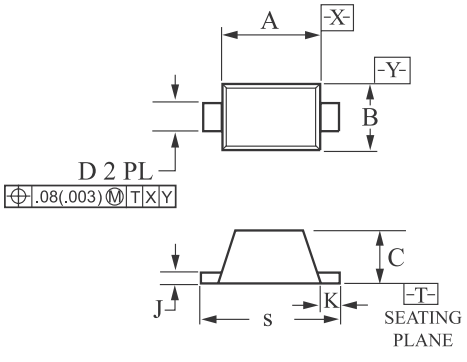
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.34	0.39	0.43	0.013	0.015	0.017
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

2. SOD– 723



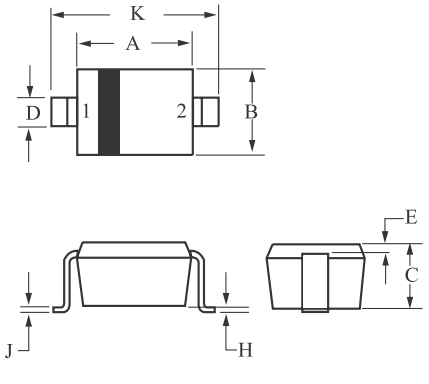
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.49	0.52	0.55	0.019	0.020	0.022
b	0.25	0.28	0.32	0.0098	0.011	0.013
c	0.08	0.12	0.15	0.0032	0.0047	0.0059
D	0.95	1.00	1.05	0.037	0.039	0.041
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	1.35	1.40	1.45	0.053	0.055	0.057
L	0.15	0.20	0.25	0.006	0.0079	0.010

3. SOD– 523/SC –79



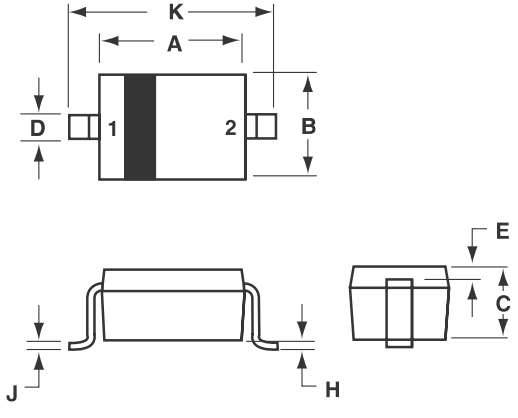
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	0.50	0.70	0.020	0.028
D	0.25	0.35	0.010	0.014
J	0.07	0.20	0.0028	0.0079
K	0.15	0.25	0.006	0.010
S	1.50	1.70	0.059	0.067

4. SOD– 323 / SC– 76



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.70	0.091	0.106

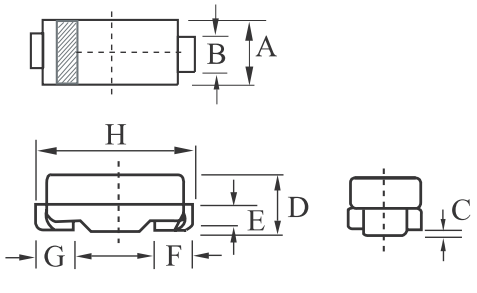
5. SOD – 123



DIM	MILLIMETERS	
	MIN	MAX
A	2.55	2.85
B	1.40	1.80
C	0.95	1.35
D	0.50	0.70
E	0.30 REF	
H	–	0.10
J	–	0.15
K	3.55	3.85

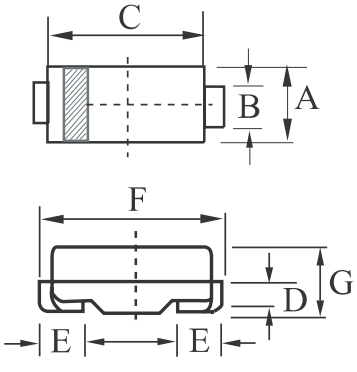
PIN 1. CATHODE
2. ANODE

6. DO – 214AC/ SMA



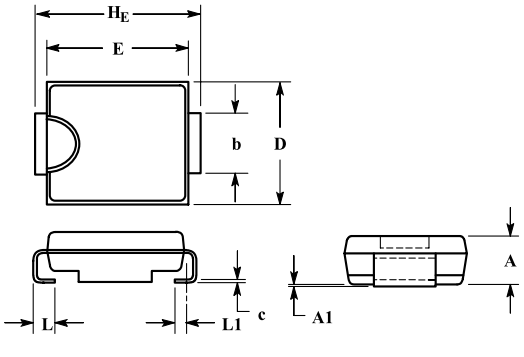
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.2	2.8	0.086	0.110
B	1.3	1.7	0.051	0.067
C	–	.2	–	0.008
D	1.7	2.55	0.067	0.100
E	0.2	1.3	0.008	0.051
F	0.9	1.5	0.035	0.059
H	4.7	5.3	0.185	0.209
G	0.9	1.5	0.035	0.059

7. DO– 214AA/ SMB



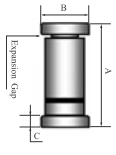
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.30	3.80	0.130	0.150
B	1.95	2.12	0.077	0.083
C	4.24	4.75	0.167	0.187
D	0.15	0.40	0.006	0.016
E	0.76	1.27	0.030	0.050
F	5.00	6.00	0.197	0.236
G	2.00	2.60	0.079	0.102

8. DO– 214AA/ SMC



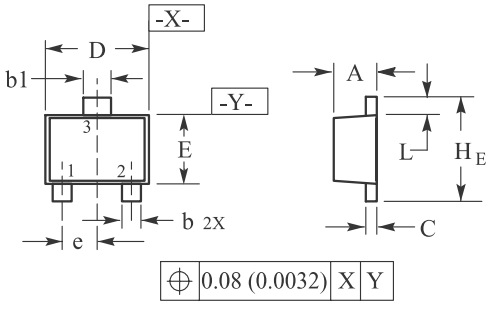
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.90	2.13	2.41	0.075	0.084	0.095
A1	0.05	0.10	0.15	0.002	0.004	0.006
b	2.92	3.00	3.07	0.115	0.118	0.121
c	0.15	0.23	0.30	0.006	0.009	0.012
D	5.59	5.84	6.10	0.220	0.230	0.240
E	6.60	6.86	7.11	0.260	0.270	0.280
H_E	7.75	7.94	8.13	0.305	0.313	0.320
L	0.76	1.02	1.27	0.030	0.040	0.050
L1	0.51 REF			0.020 REF		

9. LL– 34



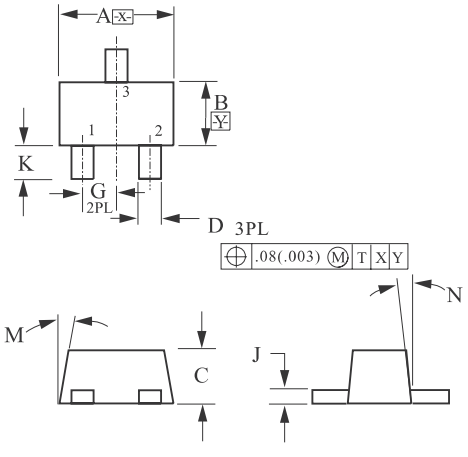
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.302	3.505	0.130	0.138
B	1.39	1.54	0.054	0.060
C	0.350	0.500	0.014	0.020

10. SOT– 723



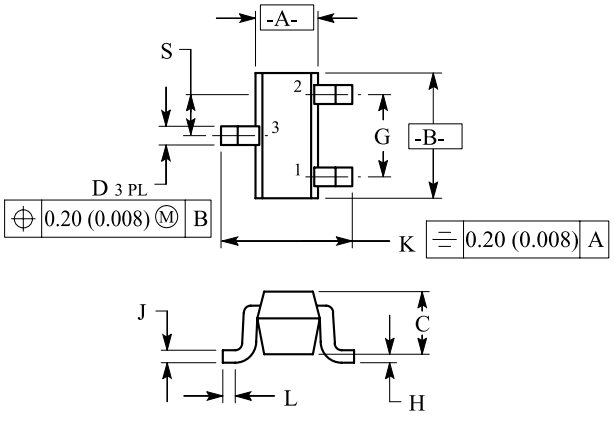
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
b	0.15	0.21	0.27	0.0059	0.0083	0.0106
b1	0.25	0.31	0.37	0.010	0.012	0.015
C	0.07	0.12	0.17	0.0028	0.0047	0.0067
D	1.15	1.20	1.25	0.045	0.047	0.049
E	0.75	0.80	0.85	0.03	0.032	0.034
e	0.40 BSC			0.016 BSC		
HE	1.15	1.20	1.25	0.045	0.047	0.049
L	0.15	0.20	0.25	0.0059	0.0079	0.0098

11. SC – 89



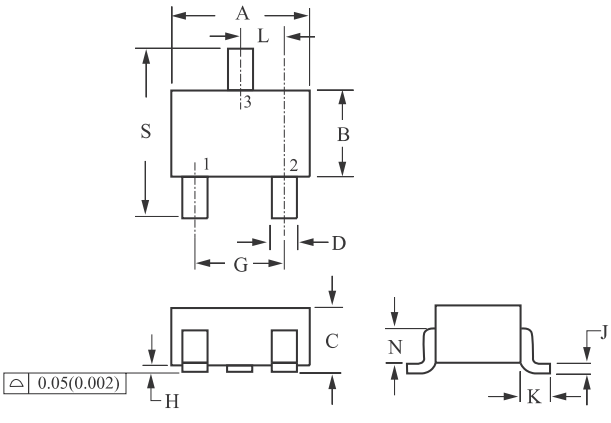
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.70	0.059	0.067
B	0.75	0.95	0.030	0.040
C	0.60	0.80	0.024	0.031
D	0.23	0.33	0.009	0.013
G	0.50BSC		0.020BSC	
H	0.53BSC		0.021REF	
J	0.10	0.20	0.004	0.008
K	0.30	0.50	0.012	0.020
L	1.10REF		0.043REF	
M	–	10^{o}	–	10^{o}
N	–	10^{o}	–	10^{o}
S	1.50	1.70	0.059	0.067

12. SC – 75/SOT –416



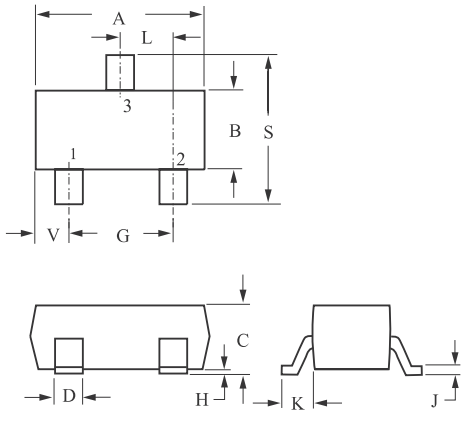
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
B	1.40	1.80	0.055	0.071
C	0.60	0.90	0.024	0.035
D	0.15	0.30	0.006	0.012
G	1.00 BSC		0.039 BSC	
H	–	0.10	–	0.004
J	0.10	0.25	0.004	0.010
K	1.45	1.75	0.057	0.069
L	0.10	0.20	0.004	0.008
S	0.50 BSC		0.020 BSC	

13. SOT－323/SC－70



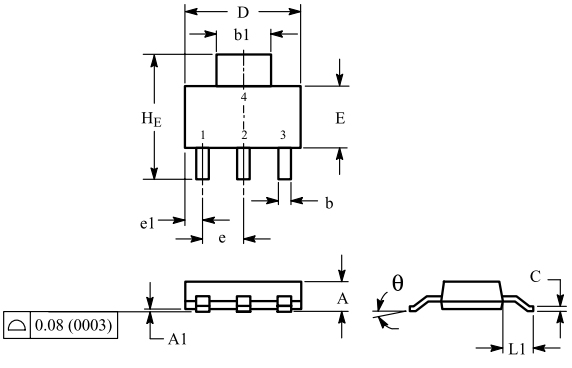
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.032	0.040
D	0.30	0.40	0.012	0.016
G	1.20	1.40	0.047	0.055
H	0.00	0.10	0.000	0.004
J	0.10	0.25	0.004	0.010
K	0.425 REF		0.017 REF	
L	0.650 BSC		0.026 BSC	
N	0.700 REF		0.028 REF	
S	2.00	2.40	0.079	0.095

14. SOT－23/TO－236AB



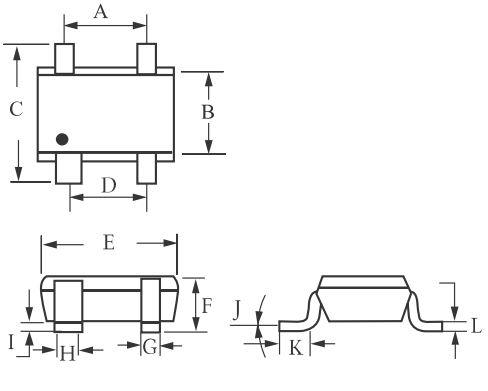
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	0.89	1.11	0.0350	0.0440
D	0.37	0.50	0.0150	0.0200
G	1.78	2.04	0.0701	0.0807
H	0.013	0.100	0.0005	0.0040
J	0.085	0.177	0.0034	0.0070
K	0.35	0.69	0.0140	0.0285
L	0.89	1.02	0.0350	0.0401
S	2.10	2.64	0.0830	0.1039
V	0.45	0.60	0.0177	0.0236

15. SOT – 223



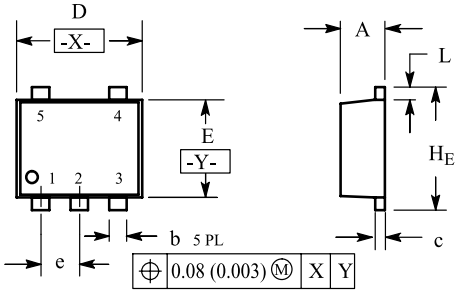
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.50	1.63	1.75	0.060	0.064	0.068
A1	0.02	0.06	0.10	0.001	0.002	0.004
b	0.60	0.75	0.89	0.024	0.030	0.035
b1	2.90	3.06	3.20	0.115	0.121	0.126
c	0.24	0.29	0.35	0.009	0.012	0.014
D	6.30	6.50	6.70	0.249	0.256	0.263
E	3.30	3.50	3.70	0.130	0.138	0.145
e	2.20	2.30	2.40	0.087	0.091	0.094
e1	0.85	0.94	1.05	0.033	0.037	0.041
L1	1.50	1.75	2.00	0.060	0.069	0.078
H_E	6.70	7.00	7.30	0.264	0.276	0.287
θ	0°	–	10°	0°	–	10°

16. SOT – 143



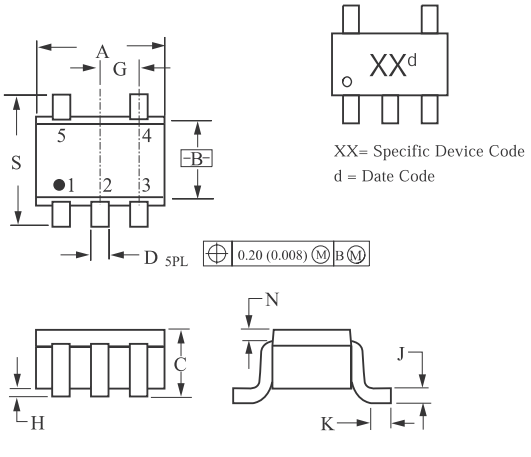
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.00	0.071	0.079
B	1.20	1.40	0.047	0.055
C	21.0	2.50	0.083	0.098
D	1.78	2.03	0.070	0.080
E	2.67	3.05	0.105	0.120
F	0.79	1.02	0.031	0.040
G	0.38	0.54	0.015	0.021
H	0.77	0.94	0.030	0.037
I	0.02	0.10	0.001	0.004
J	8°Max			
K	0.13	0.25	0.005	0.010
L	0.09	0.15	0.004	0.006

17. SOT – 553



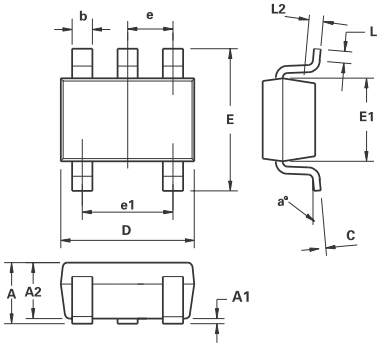
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.063	0.067
E	1.10	1.20	1.30	0.043	0.047	0.051
e	0.50 BSC			0.020 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
H_E	1.50	1.60	1.70	0.059	0.063	0.067

18. SOT – 353 /SC – 88A



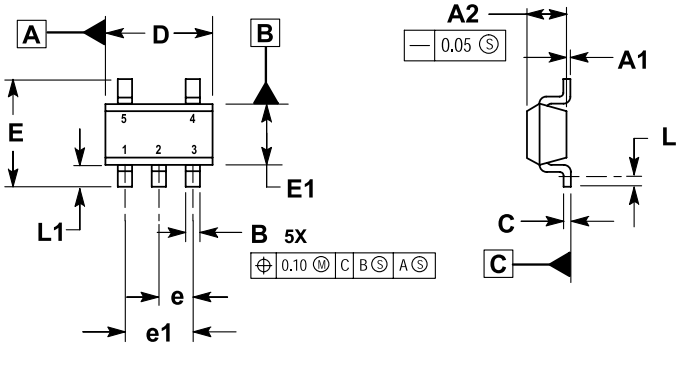
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.10	0.031	0.043
D	0.10	0.30	0.004	0.012
G	0.65 BSC		0.026 BSC	
H	—	0.10	—	0.004
J	0.10	0.25	0.004	0.010
K	0.10	0.30	0.004	0.012
N	0.20 REF		0.008 REF	
S	2.00	2.20	0.079	0.087

19. TSOT–23–5



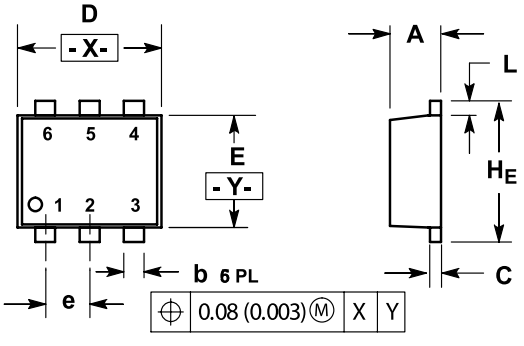
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	–	1.00	–	0.0393
A1	0.01	0.10	0.0003	0.0039
A2	0.84	0.90	0.0330	0.0354
b	0.30	0.45	0.0118	0.0177
c	0.12	0.20	0.0047	0.0078
D	2.90 BSC		0.114 BSC	
E	2.80 BSC		0.110 BSC	
E1	1.60 BSC		0.062 BSC	
e	0.95 BSC		0.0374 BSC	
e1	1.90 BSC		0.0748 BSC	
L	0.30	0.50	0.0118	0.0196
L2	0.25 BSC		0.010 BSC	
a°	4°	12°	4°	12°

20. SOT–23–5



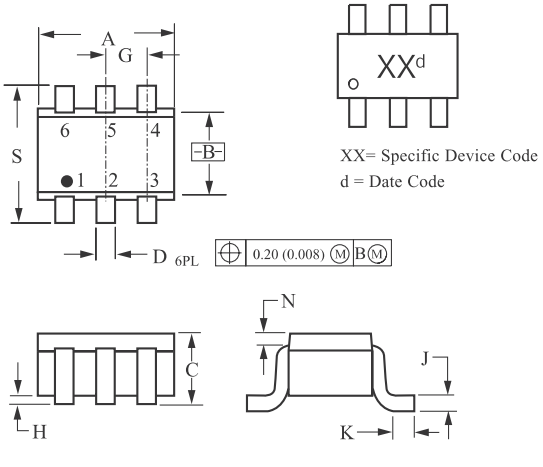
DIM	MILLIMETERS	
	MIN	MAX
A1	0.00	0.10
A2	1.00	1.30
B	0.30	0.50
C	0.10	0.25
D	2.80	3.00
E	2.50	3.10
E1	1.50	1.80
e	0.95 BSC	
e1	1.90 BSC	
L	0.20	–
L1	0.45	0.75

21. SOT – 563



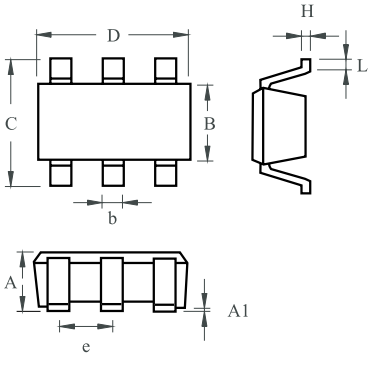
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.021	0.023
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.50	1.60	1.70	0.059	0.062	0.066
E	1.10	1.20	1.30	0.043	0.047	0.051
e	0.50 BSC			0.020 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
H_E	1.50	1.60	1.70	0.059	0.062	0.066

22. SOT – 363 /SC –88



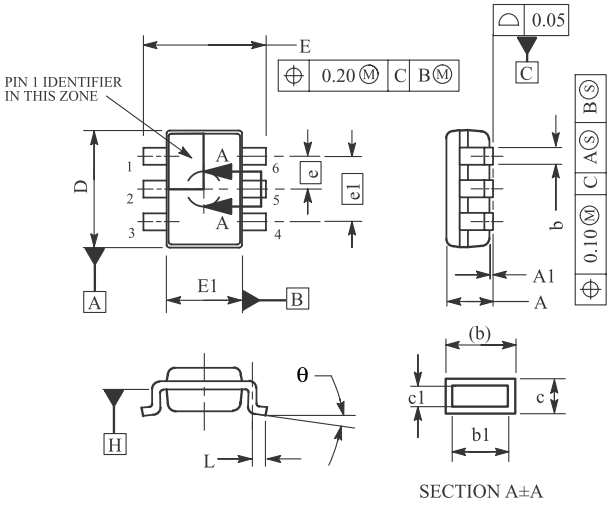
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.80	1.10	0.031	0.043
D	0.10	0.30	0.004	0.012
G	0.65 BSC		0.026 BSC	
H	—	0.10	—	0.004
J	0.10	0.25	0.004	0.010
K	0.10	0.30	0.004	0.012
N	0.20 REF		0.008 REF	
S	2.00	2.20	0.079	0.087

23. TSOT–23–6



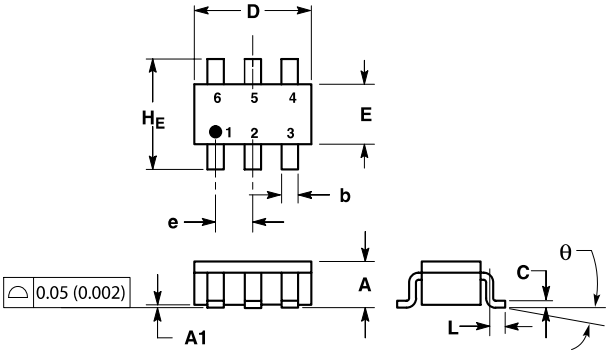
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.700	1.000	0.028	0.039
A1	0.000	0.100	0.000	0.004
B	1.397	1.803	0.055	0.071
b	0.300	0.559	0.012	0.022
C	2.591	3.000	0.102	0.118
D	2.692	3.099	0.106	0.122
e	0.838	1.041	0.033	0.041
H	0.080	0.254	0.003	0.010
L	0.300	0.610	0.012	0.024

24. SOT–23–6



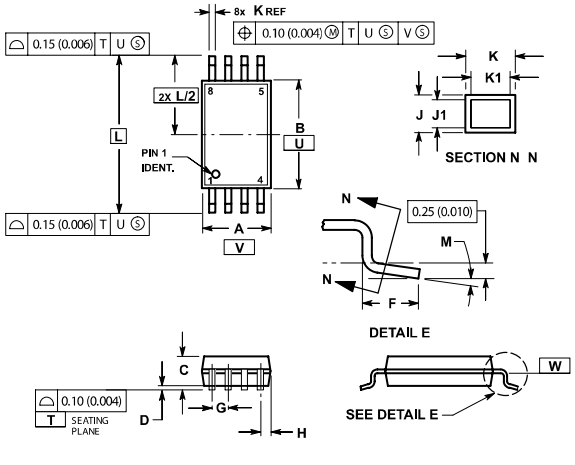
DIM	MILLIMETERS	
	MIN	MAX
A	1.25	1.40
A1	0.00	0.10
b	0.35	0.50
b1	0.35	0.45
c	0.10	0.25
c1	0.10	0.20
D	3.20	3.60
E	3.00	3.60
E1	2.00	2.40
e	0.95	
e1	1.90	
L	0.25	0.55
θ	0°	10°

25. SC – 74



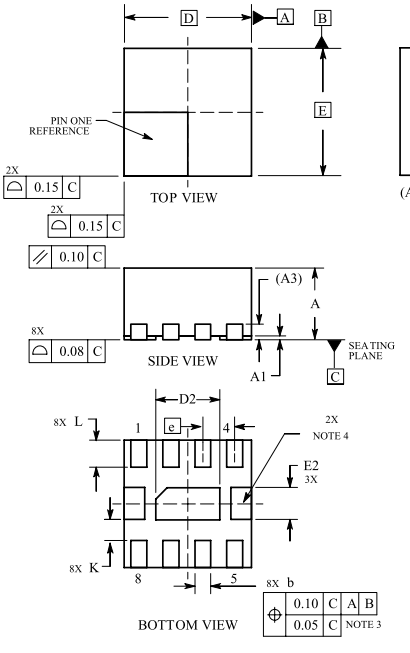
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	1.00	1.10	0.035	0.039	0.043
A_1	0.01	0.06	0.10	0.001	0.002	0.004
b	0.25	0.37	0.50	0.010	0.015	0.020
c	0.10	0.18	0.26	0.004	0.007	0.010
D	2.90	3.00	3.10	0.114	0.118	0.122
E	1.30	1.50	1.70	0.051	0.059	0.067
e	0.85	0.95	1.05	0.034	0.037	0.041
L	0.20	0.40	0.60	0.008	0.016	0.024
H_E	2.50	2.75	3.00	0.099	0.108	0.118
θ	0°		10°	0°		10°

26. TSSOP – 8



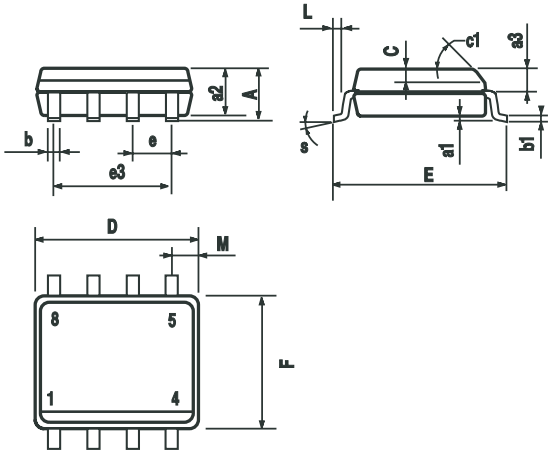
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.90	3.10	0.114	0.122
B	4.30	4.50	0.169	0.177
C	–	1.20	–	0.047
D	0.05	0.15	0.002	0.006
F	0.50	0.75	0.020	0.030
G	0.65 BSC		0.026 BSC	
H	0.50	0.60	0.020	0.024
J	0.09	0.20	0.004	0.008
J1	0.09	0.16	0.004	0.006
K	0.19	0.30	0.007	0.012
K1	0.19	0.25	0.007	0.010
L	6.40 BSC		0.252 BSC	
M	0°	8°	0°	8°

27. DFN8



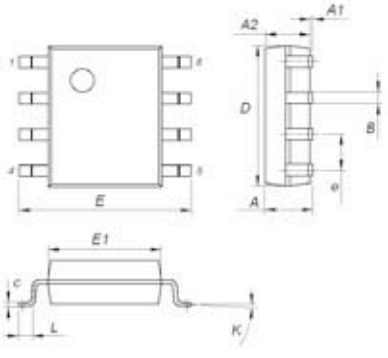
DIM	MILLIMETERS	
	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.15	0.25
D	1.60 BSC	
D2	0.70	0.90
E	1.60 BSC	
E2	0.30	0.50
e	0.40 BSC	
K	0.20	–
L	0.20	0.40

28. SO– 8



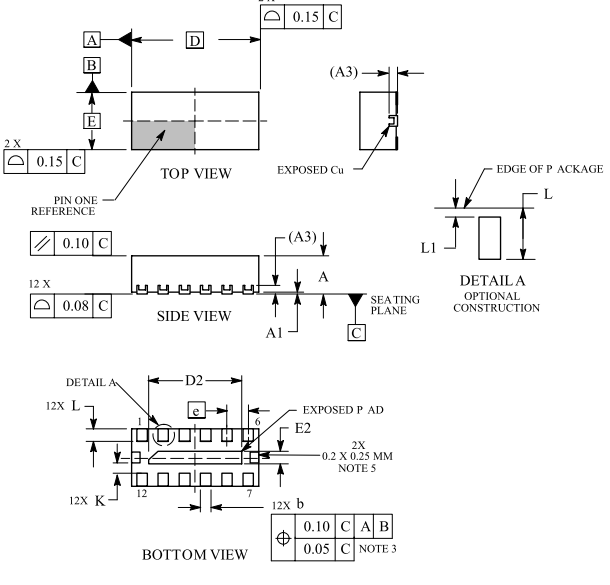
DIM	MILLIMETERS			INCHES		
	MIN	TYP	MAX	MIN	TYP	MAX
A			1.75			0.068
a1	0.1		0.25	0.003		0.009
a2			1.65			0.064
a3	0.65		0.85	0.025		0.033
b	0.35		0.48	0.013		0.018
b1	0.19		0.25	0.007		0.010
C	0.25		0.5	0.010		0.019
c1	45° (typ)					
D	4.8		5.0	0.189		0.196
E	5.8		6.2	0.228		0.244
e		1.27			0.050	
e3		3.81			0.150	
F	3.8		4.0	0.149		0.157
L	0.4		1.27	0.015		0.050
M			0.6			0.023
S	8° (max)					

29. SOP – 8



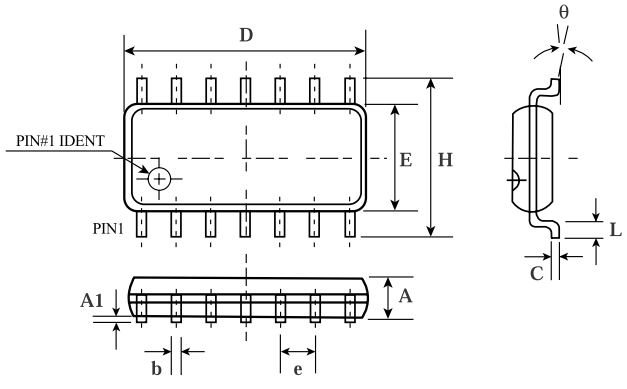
DIM	MILLIMETERS		
	MIN	TYP	MAX
A			1.75
A1	0.10		0.25
A2	1.35	1.55	1.75
B	0.35	0.42	0.49
C	0.19		0.25
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.95	4.00
e		1.27	
L	0.40		0.90
K	0°		8°

30. DFN12



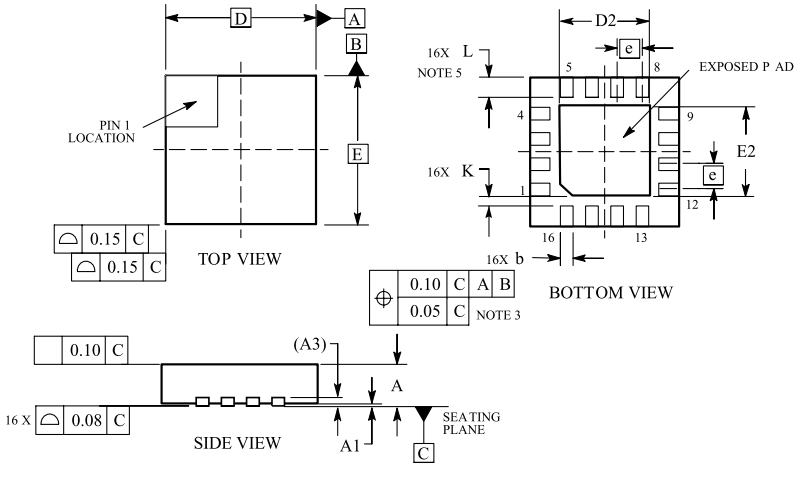
DIM	MILLIMETERS	
	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.18	0.30
D	3.00 BSC	
D2	2.10	2.30
E	1.35 BSC	
E2	0.20	0.40
e	0.50 BSC	
K	0.20	–
L	0.20	0.40
L1	0.00	0.15

31. SOP– 14



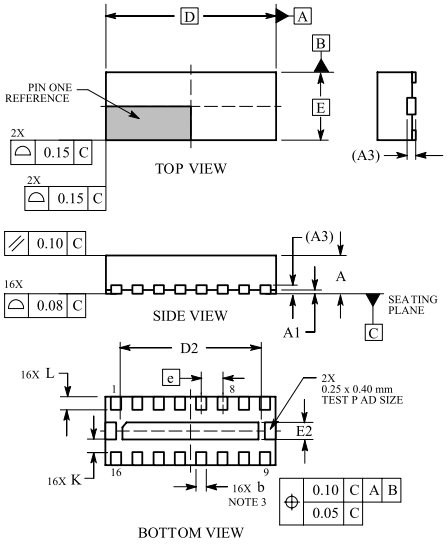
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.30	1.50	1.70	0.051	0.059	0.067
A1	0.08	0.16	0.24	0.003	0.006	0.009
b	–	0.40	–	–	0.016	–
C	–	0.25	–	–	0.010	–
D	8.25	8.55	8.85	0.325	0.337	0.348
E	3.75	3.95	4.15	0.148	0.156	0.163
e	–	1.27	–	–	0.050	–
H	5.70	6.00	6.30	0.224	0.236	0.248
L	0.45	0.65	0.85	0.018	0.026	0.033
θ	0°	–	8°	0°	–	8°

32. QFN16



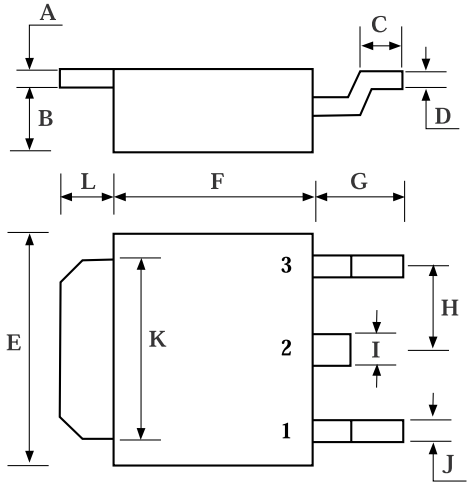
DIM	MILLIMETERS	
	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.18	0.30
D	3.00 BSC	
D2	1.65	1.85
E	3.00 BSC	
E2	1.65	1.85
e	0.50 BSC	
K	0.18 TYP	
L	0.30	0.50

33. DFN16



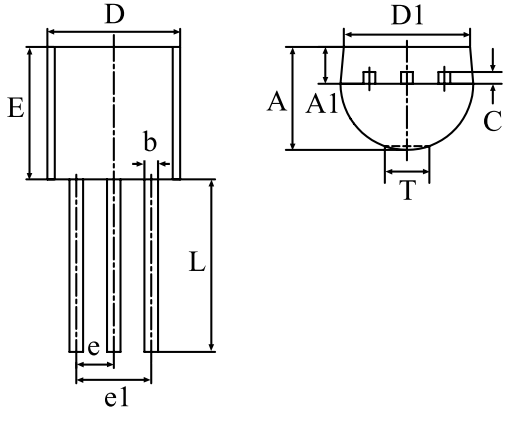
DIM	MILLIMETERS	
	MIN	MAX
A	0.80	1.00
A1	0.00	0.05
A3	0.20 REF	
b	0.18	0.30
D	4.00 BSC	
D2	3.10	3.30
E	1.60 BSC	
E2	0.30	0.50
e	0.50 BSC	
K	0.20	–
L	0.20	0.40

34. TO–252



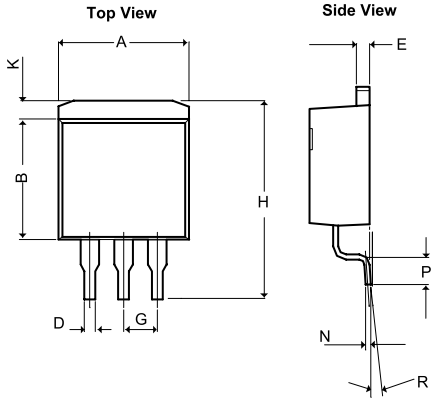
DIM	MILLIMETERS	
	MIN	MAX
A	0.45	0.55
B	1.65	1.95
C	0.90	1.50
D	0.45	0.60
E	6.40	6.80
F	5.20	5.60
G	2.20	2.80
H	–	2.30
I	–	0.90
J	–	0.80
K	5.20	5.50
L	1.40	1.60

35. TO–92



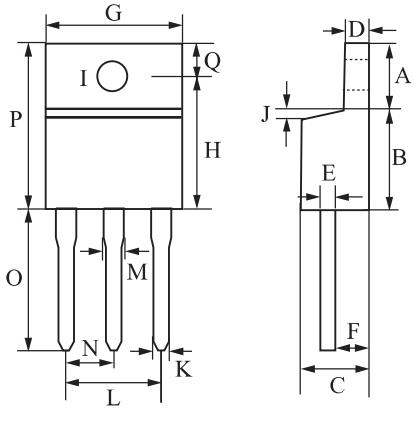
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.300	3.700	0.130	0.146
A_1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D_1	3.430	–	0.135	–
E	1.270TYP		0.050TYP	
e	4.300	4.700	0.169	0.185
e_1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
0	–	1.600	–	0.063
T	0.000	0.380	0.000	0.015

36. TO–263–3



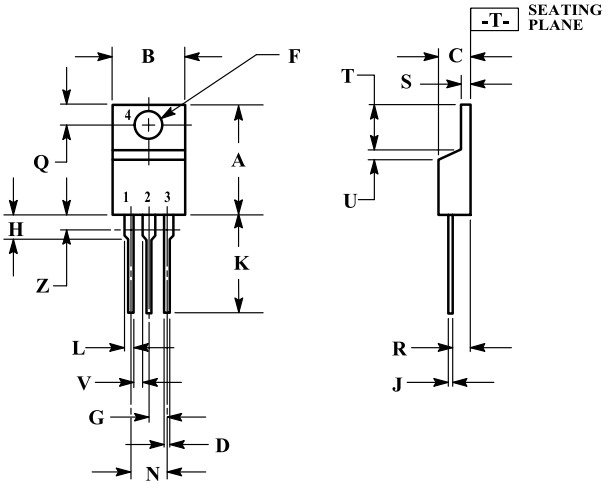
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.65	10.668	0.380	0.420
B	8.28	9.66	0.326	0.380
C	4.06	4.83	0.160	0.190
D	0.50	1.36	0.020	0.054
E	1.14	1.45	0.045	0.057
G	*2.54		*0.100	
H	14.60	15.875	0.5748	0.625
K	0.99	2.93	0.03898	0.11535
N	0.381REF		0.015REF	
P	2.28	2.80	0.08976	0.11024
R	0°	8°	0°	8°

37. TO–220



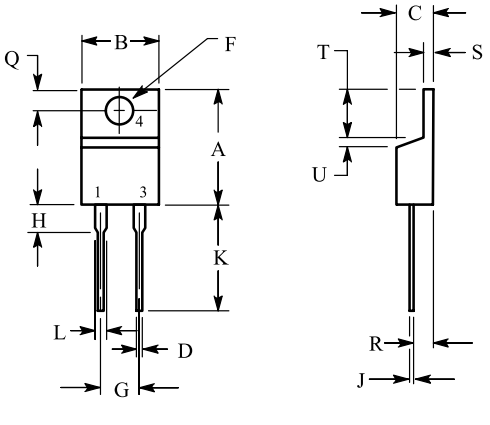
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	5.58	6.54	7.49	0.220	0.257	0.295
B	8.38	8.64	8.90	0.330	0.340	0.350
C	4.07	4.45	4.82	0.160	0.175	0.190
D	1.15	1.27	1.39	0.045	0.050	0.055
E	0.35	0.45	0.60	0.014	0.018	0.024
F	2.04	2.42	2.79	0.080	0.095	0.110
G	9.66	9.97	10.28	0.380	0.393	0.405
H	–	16.25	–	–	0.640	–
I	3.68	3.83	3.98	0.145	0.151	0.157
J	–	–	1.27	–	–	0.050
K	0.75	0.85	0.95	0.030	0.033	0.037
L	4.83	5.08	5.33	0.190	0.200	0.210
M	1.15	1.33	1.52	0.045	0.052	0.060
N	2.42	2.54	2.66	0.095	0.100	0.105
O	12.70	13.48	14.27	0.500	0.531	0.562
P	14.48	15.17	15.87	0.570	0.597	0.625
Q	2.54	2.79	3.04	0.100	0.110	0.120

38. TO– 220AB



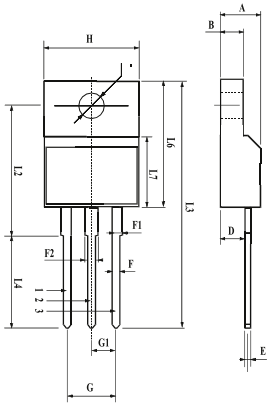
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.48	15.75	0.570	0.620
B	9.66	10.28	0.380	0.405
C	4.07	4.82	0.160	0.190
D	0.64	0.88	0.025	0.035
F	3.61	3.73	0.142	0.147
G	2.42	2.66	0.095	0.105
H	2.80	3.93	0.110	0.155
J	0.46	0.64	0.018	0.025
K	12.70	14.27	0.500	0.562
L	1.15	1.52	0.045	0.060
N	4.83	5.33	0.190	0.210
Q	2.54	3.04	0.100	0.120
R	2.04	2.79	0.080	0.110
S	1.15	1.39	0.045	0.055
T	5.97	6.47	0.235	0.255
U	0.00	1.27	0.000	0.050
V	1.15	–	0.045	–
Z	–	2.04	–	0.080

39. TO– 220AC



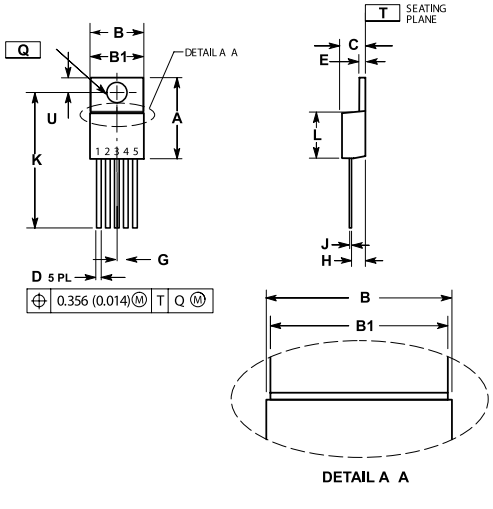
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	15.11	15.75	0.595	0.620
B	9.65	10.29	0.380	0.405
C	4.06	4.82	0.160	0.190
D	0.64	0.89	0.025	0.035
F	3.61	3.73	0.142	0.147
G	4.83	5.33	0.190	0.210
H	2.79	3.30	0.110	0.130
J	0.46	0.64	0.018	0.025
K	12.70	14.27	0.500	0.562
L	1.14	1.52	0.045	0.060
Q	2.54	3.04	0.100	0.120
R	2.04	2.79	0.080	0.110
S	1.14	1.39	0.045	0.055
T	5.97	6.48	0.235	0.255
U	0.000	1.27	0.000	0.050

40. TO–220FP



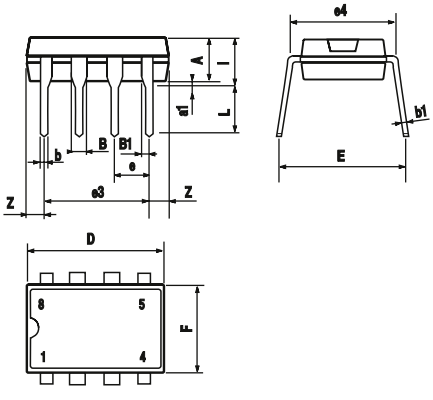
DIM	MILLIMETERS			INCHES		
	MIN	TYP	MAX	MIN	TYP	MAX
A	4.4		4.6	0.173		0.181
B	2.5		2.7	0.098		0.106
D	2.5		2.75	0.098		0.108
E	0.45		0.7	0.017		0.027
F	0.75		1	0.030		0.039
F1	1.15		1.7	0.045		0.067
F2	1.15		1.7	0.045		0.067
G	4.95		5.2	0.195		0.204
G1	2.4		2.7	0.094		0.106
H	10		10.4	0.393		0.409
L2		16			0.630	
L3	28.6		30.6	1.126		1.204
L4	9.8		10.6	0.385		0.417
L6	15.9		16.4	0.626		0.645
L7	9		9.3	0.354		0.366
Ø	3		3.2	0.118		0.126

41. TO–220–5



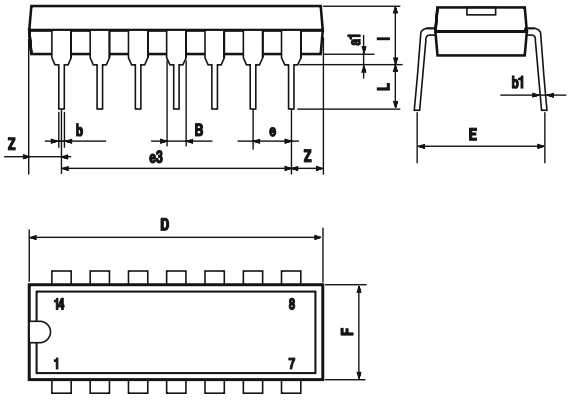
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	14.529	15.570	0.572	0.613
B	9.906	10.541	0.390	0.415
B1	9.525	10.541	0.375	0.415
C	4.318	4.572	0.170	0.180
D	0.635	0.965	0.025	0.038
E	1.219	1.397	0.048	0.055
G	1.702 BSC		0.067 BSC	
H	2.210	2.845	0.087	0.112
J	0.381	0.635	0.015	0.025
K	24.810	26.543	0.977	1.045
L	8.128	9.271	0.320	0.365
Q	3.556	3.886	0.140	0.153
U	2.667	2.972	0.105	0.117

42. DIP – 8



DIM	MILLIMETERS			INCHES		
	MIN	TYP	MAX	MIN	TYP	MAX
A		3.3			0.130	
a1	0.7			0.028		
B	1.39		1.65	0.055		0.065
B1	0.91		1.04	0.036		0.041
b		0.5			0.020	
b1	0.38		0.5	0.015		0.020
D			9.8			0.386
E		8.8			0.346	
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			7.1			0.280
I			4.8			0.189
L		3.3			0.130	
Z	0.44		1.6	0.017		0.063

43. DIP – 14



DIM	MILLIMETERS			INCHES		
	MIN	TYP	MAX	MIN	TYP	MAX
a1	0.51			0.020		
B	1.39		1.65	0.055		0.065
b		0.5			0.020	
b1		0.25			0.010	
D			20			0.787
E		8.5			0.335	
e		2.54			0.100	
e3		15.24			0.600	
F			7.1			0.280
I			5.1			0.201
L		3.3			0.130	
Z	1.27		2.54	0.050		0.100

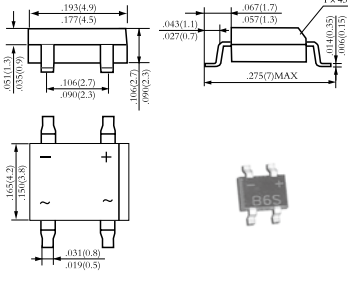
BRIDGE RECTIFIERS

1. 0.5A B1S-B10SS Series General Purpose Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
B1S B2S B4S B6S B8S B10S	100 200 400 600 800 1000	0.5	30	1.00	5	250	125
B10SS	1000	0.8	40	1.00	5	250	125

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

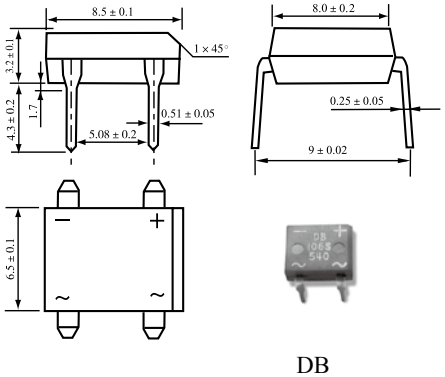


2. 1.0A DB/DBS Series Double-in-line Package General Purpose Bridge Rectifiers

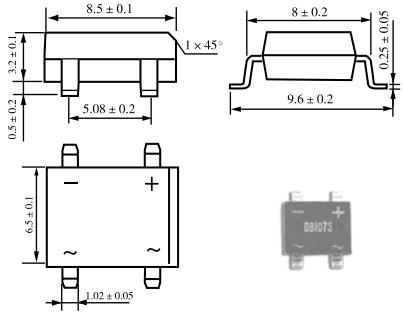
TYPE		Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
		PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
		V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
DIP BRIDGE RECTIFIERS (DB)								
DF01	DB102	100	1.0	50	1.1	10	500	125
DF02	DB103	200						
DF04	DB104	400						
DF06	DB105	600						
DF08	DB106	800						
DF10	DB107	1000						
SMD BRIDGE RECTIFIERS (DBS)								
DB102-S		100	1.0	50	1.1	10	500	125
DB103-S		200						
DB104-S		400						
DB105-S		600						
DB106-S		800						
DB107-S		1000						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.



DB



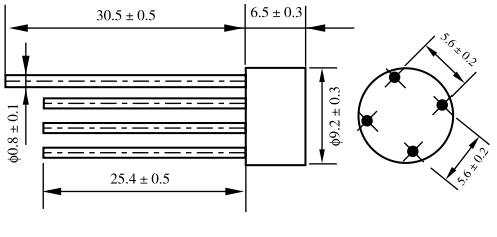
DBS

3. 1.5-2.0A WOM Series General Purpose Bridge Rectifiers

TYPE		Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
		PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
		V	A	A	V	25°C CT_A μADC	125°C CT_A μADC	°C
W01		100	1.5	50	1.1	10	500	125
W02		200						
W04		400						
W06		600						
W08		800						
W10		1000						
RC202	2W01	100	2.0	50	1.1	10	500	125
RC203	2W02	200						
RC204	2W04	400						
RC205	2W06	600						
RC206	2W08	800						
RC207	2W10	1000						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

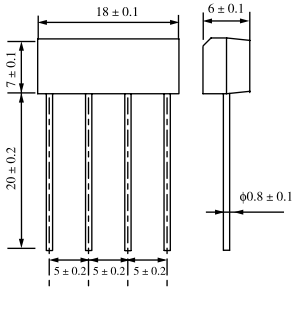


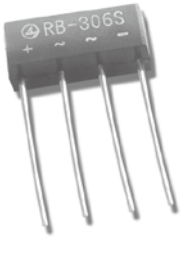
4. 1.5-3.0A RB Series Single-in-line Package General Purpose Bridge Rectifiers

TYPE		Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
		PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
		V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
RB151	RB151S	100	1.5	50	at I_F=1.5ADC 1.0	10	500	125
RB152	RB152S	200						
RB154	RB154S	400						
RB156	RB156S	600						
RB158	RB158S	800						
RB159	RB159S	1000						
RB201	RB201S	100	2.0	80	at I_F=2.0ADC 1.0	10	500	125
RB202	RB202S	200						
RB204	RB204S	400						
RB206	RB206S	600						
RB208	RB208S	800						
RB209	RB209S	1000						
RB301S		100	3.0	80	at I_F=3.0ADC 1.0	10	500	125
RB302S		200						
RB304S		400						
RB306S		600						
RB308S		800						
RB309S		1000						

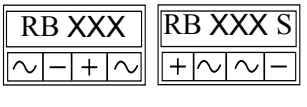
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.





Pinout:

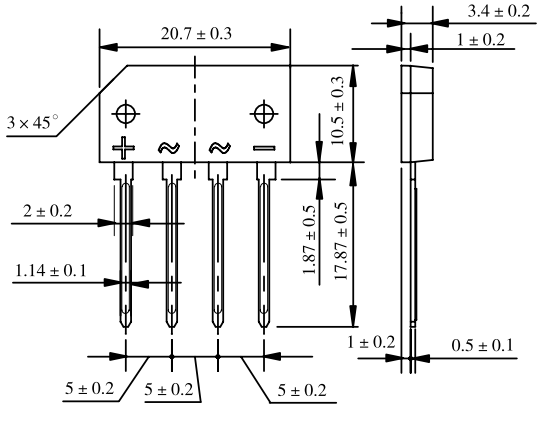


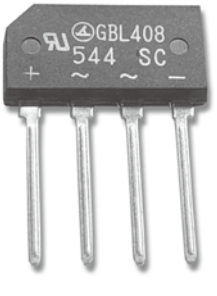
5. 2.0-4.0A GBL Series SIP Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM}(Surge)	V_F	I_R		T_J
	V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
GBL201 GBL202 GBL204 GBL206 GBL208 GBL210	100 200 400 600 800 1000	2.0	80	1.1	10	500	150
GBL401 GBL402 GBL404 GBL406 GBL408 GBL410	100 200 400 600 800 1000	4.0	150	1.1	10	500	150

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.



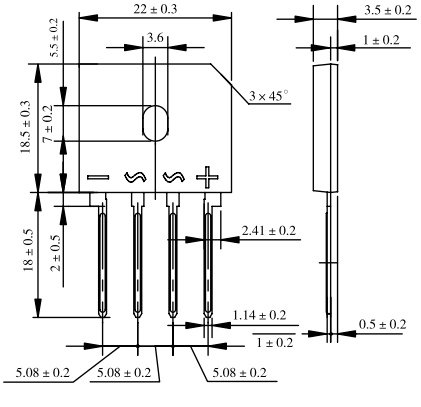


6. 4.0-15A GBU Series Single-in-line Package Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM}(Surge)	V_F	I_R		T_J
	V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
GBU4B GBU4D GBU4G GBU4J GBU4K GBU4M	100 200 400 600 800 1000	4.0	150	at I_F=2.0ADC 1.0	10	500	150
GBU6B GBU6D GBU6G GBU6J GBU6K GBU6M	100 200 400 600 800 1000	6.0	175	at I_F=3.0ADC 1.0	10	500	150

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

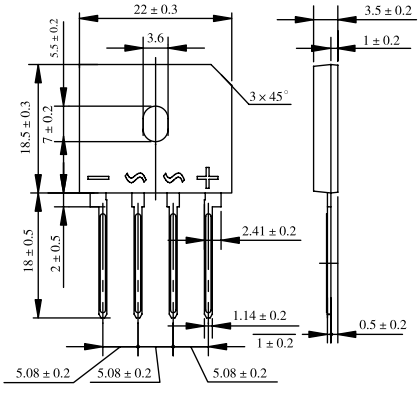


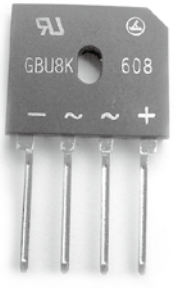
6.1 4.0-15A GBU Series Single-in-line Package Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM}(Surge)	V_F	I_R		T_J
	V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
GBU8B GBU8D GBU8G GBU8J GBU8K GBU8M	100 200 400 600 800 1000	8.0	200	at I_F=4.0ADC 1.0	10	500	150
GBU15B GBU15D GBU15G GBU15J GBU15K GBU15M	100 200 400 600 800 1000	15	250	at I_F=7.5ADC 1.1	5	500	150

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.



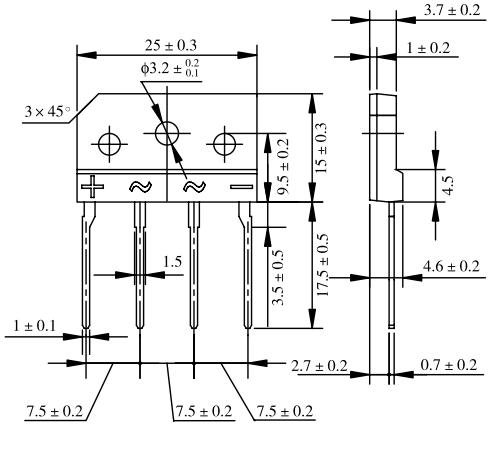


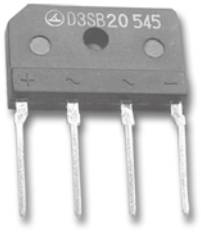
7. 4.0-6.0A D3-4SB Series Single-in-line Package Bridge Rectifiers

TYPE		Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
		PRV	I_O	I_{FM}(Surge)	V_F	I_R		T_J
		V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
RBV401G	D3SB10	100	4.0	120	at I_F=2.0ADC 1.1	10	500	150
RBV402G	D3SB20	200						
RBV404G	D3SB40	400						
RBV406G	D3SB60	600						
RBV408G	D3SB80	800						
RBV410G	D3SB100	1000						
KBJ601G	D4SB10	100	6.0	150	at I_F=3.0ADC 1.1	10	500	150
KBJ602G	D4SB20	200						
KBJ604G	D4SB40	400						
KBJ606G	D4SB60	600						
KBJ608G	D4SB80	800						
KBJ610G	D4SB100	1000						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.



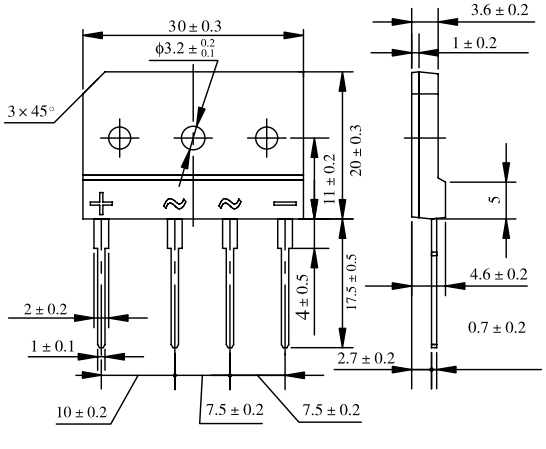


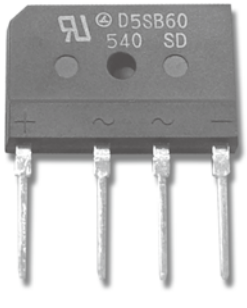
8. 10-25A D10-25SB Series Single-in-line Package Bridge Rectifiers

TYPE		Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
		PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
		V	A	A	V	25°C CT_A μADC	125°C CT_A μADC	°C
RBV601S	D5SB10	100	6.0	150	at I_F=3.0ADC 1.1	10	500	150
RBV602S	D5SB20	200						
RBV604S	D5SB40	400						
RBV606S	D5SB60	600						
RBV608S	D5SB80	800						
RBV610S	D5SB100	1000						
D10SB10		100	10	175	at I_F=5.0ADC 1.1	10	500	150
D10SB20		200						
D10SB40		400						
D10SB60		600						
D10SB80		800						
D10SB100		1000						

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

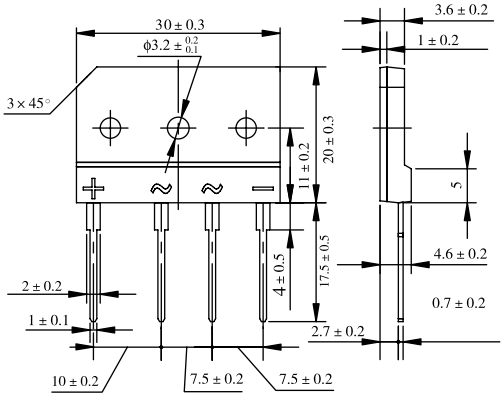


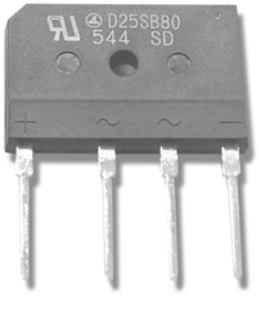


8.1 10-25A D10-25SB Series Single-in-line Package Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°C T_A μADC	125°C T_A μADC	°C
D15SB10 D15SB20 D15SB40 D15SB60 D15SB80 D15SB100	100 200 400 600 800 1000	15	200	at I_F=7.5ADC 1.1	10	500	150
D20SB10 D20SB20 D20SB40 D20SB60 D20SB80 D20SB100	100 200 400 600 800 1000	20	250	at I_F=10ADC 1.1	5	500	150
D25SB10 D25SB20 D25SB40 D25SB60 D25SB80 D25SB100	100 200 400 600 800 1000	25	350	at I_F=12.5ADC 1.1	10	500	150

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

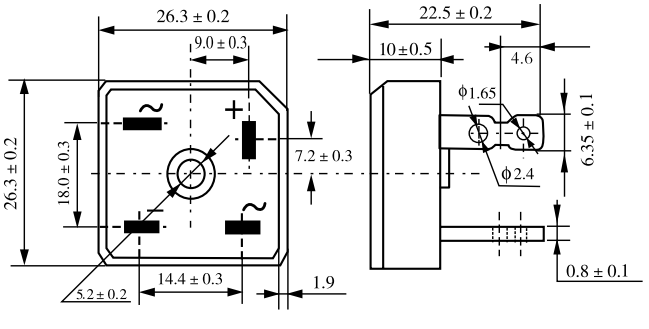


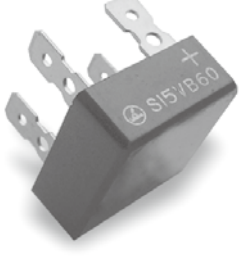


9. 15A Series Square Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°CT_A μADC	125°CT_A μADC	°C
S15VB10 S15VB20 S15VB40 S15VB60 S15VB80 S15VB100	100 200 400 600 800 1000	15	200	1.1	10	500	125

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

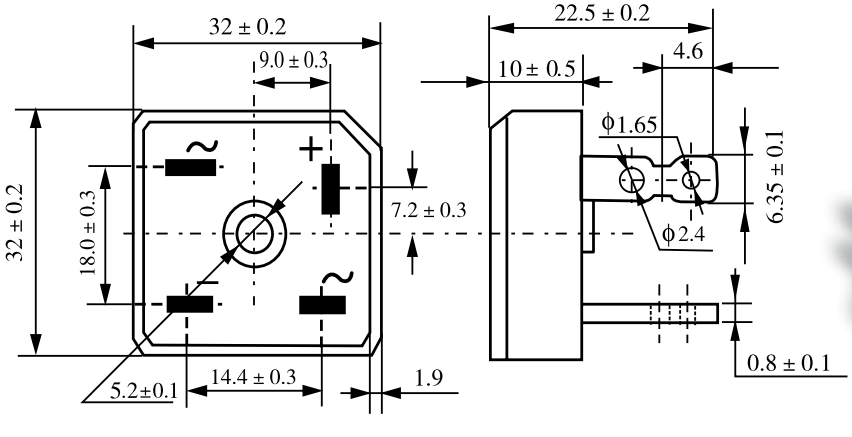


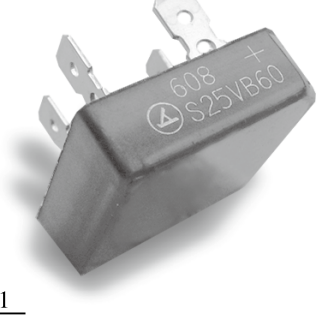


10. 25-35A S25-35 Square Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per element at I_F=1.0ADC	Maximum DC Reverse Current at rated DC Blocking Voltage per element		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°C T_A μADC	125°C T_A μADC	°C
S25VB10 S25VB20 S25VB40 S25VB60 S25VB80 S25VB100	100 200 400 600 800 1000	25	300	at I_F=12.5ADC 1.1	10	500	125
MP351 MP352 MP354 MP356 MP358 MP3510	100 200 400 600 800 1000	35	400	at I_F=17.5ADC 1.05	10	500	125

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.



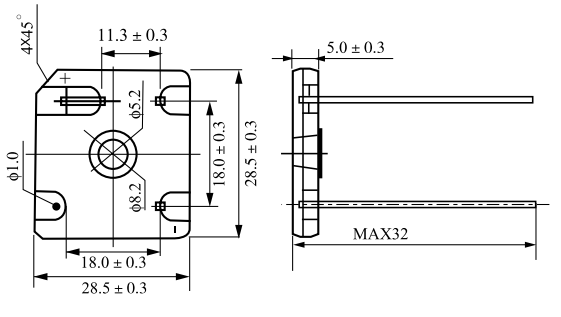


11. Square Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per leg	Maximum DC Reverse Current at rated DC Blocking Voltage per leg		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°C CT_A μADC	125°C CT_A μADC	°C
S15VB10W S15VB20W S15VB40W S15VB60W S15VB80W S15VB100W	100 200 400 600 800 1000	15	200	at I_F=7.5ADC 1.1	10	500	125
S25VB10W S25VB20W S25VB40W S25VB60W S25VB80W S25VB100W	100 200 400 600 800 1000	25	300	at I_F=12.5ADC 1.1	10	500	125
MP351W MP352W MP354W MP356W MP358W MP3510W	100 200 400 600 800 1000	35	400	at I_F=17.5ADC 1.1	10	500	125

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

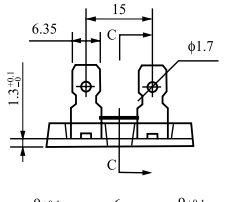


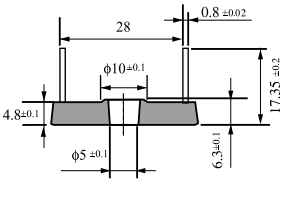
11.1 Square Bridge Rectifiers

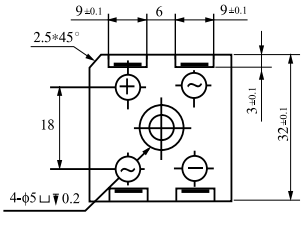
TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per leg	Maximum DC Reverse Current at rated DC Blocking Voltage per leg		Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R		T_J
	V	A	A	V	25°C CT_A μADC	125°C CT_A μADC	°C
S15VB10M S15VB20M S15VB40M S15VB60M S15VB80M S15VB100M	100 200 400 600 800 1000	15	200	at I_F=7.5ADC 1.1	10	500	125
S25VB10M S25VB20M S25VB40M S25VB60M S25VB80M S25VB100M	100 200 400 600 800 1000	25	300	at I_F=12.5ADC 1.1	10	500	125
MP351M MP352M MP354M MP356M MP358M MP3510M	100 200 400 600 800 1000	35	400	at I_F=17.5ADC 1.1	10	500	125

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.





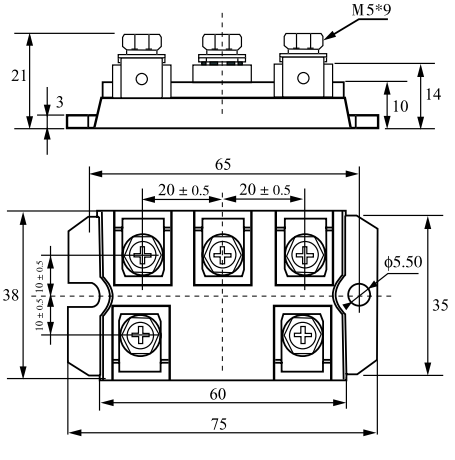


12. Three-Phase Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per leg	Maximum DC Reverse Current at rated DC Blocking Voltage per leg	Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R	T_J
	V	A	A	V	mA	°C
3QL60AK 3QL60AM 3QL60AO 3QL60AS	800 1000 1200 1600	60	910	1.2	6	150
3QL75AK 3QL75AM 3QL75AO 3QL75AS	800 1000 1200 1600	75	910	1.2	10	150
3QL100AK 3QL100AM 3QL100AO 3QL100AS	800 1000 1200 1600	100	910	1.2	15	150

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

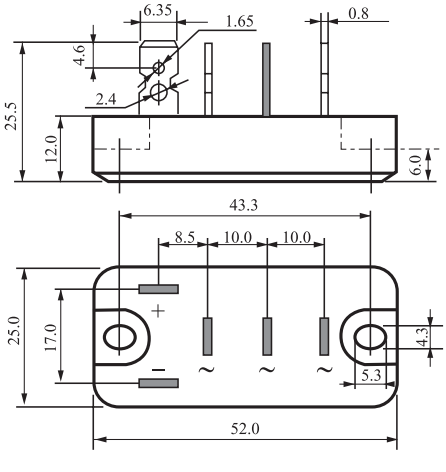


12.1 Three-Phase Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per leg	Maximum DC Reverse Current at rated DC Blocking Voltage per leg	Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R	T_J
	V	A	A	V	mA	°C
DF30DB40	400	30	365	1.1	1.5	125
DF30DB80	800					
DF30DB120	1200					
DF30DB160	1600					

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.

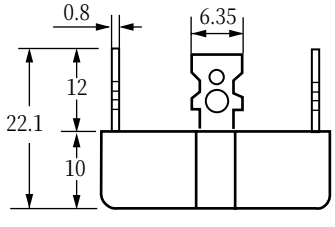


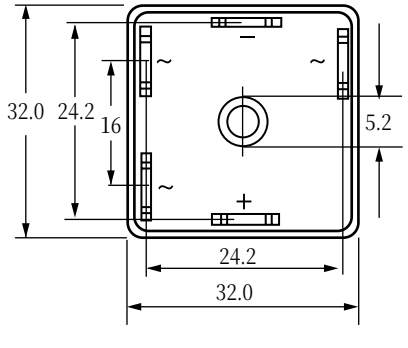
12.2 Three-Phase Bridge Rectifiers

TYPE	Maximum Peak Reverse Voltage	Maximum Average Forward Output Current	Maximum Forward Peak Surge Current @ 8.3ms Superimposed	Maximum DC Forward Voltage drop per leg	Maximum DC Reverse Current at rated DC Blocking Voltage per leg	Operating Junction Temperature
	PRV	I_O	I_{FM} (Surge)	V_F	I_R	T_J
	V	A	A	V	mA	°C
PSD3504	400	35	500	1.7	0.3	125
PSD3508	800					
PSD3512	1200					
PSD3516	1600					

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase,half wave,60Hz,resistive or inductive load. For capacitive load,derate current by 20%.





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公司资质 Company Certificate

CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

Leshan Phoenix Semiconductor Co., Ltd.
289, West People Road, Leshan, Sichuan, 614000
People's Republic of China

has been approved by Lloyd's Register Quality Assurance, Coventry, West Midlands, UK, to the following Quality Management System Standard:

ISO/TS 16949:2002

The Quality Management System is applicable to:

Design, development, assembly, test and packaging of semiconductor devices.

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable to this approval are listed.

Approval Certificate No: QAC0031076

Original ISO/TS 16949 Approval: 18 December 2003
Current Certificate: 18 December 2006
Certificate Expiry: 17 December 2009

Issued by: Lloyd's Register Quality Assurance Limited

IATF Certificate No: 0039897

This document is subject to the provision on the reverse
Room 2018, Ocean Towers, No.550 Yan An Dong Road, Shanghai, People's Republic of China
This approval is carried out in accordance with the IRQA assessment and certification procedures and monitored by IRQA

QUALITY SYSTEM CERTIFICATE

Certificate No.: 0106Q117712R2M/5100

We hereby certify that
Leshan Radio Company Ltd.

No.27 West People Road, Leshan City, Sichuan Province, P.R.China

by reason of its
Quality Management System
has been awarded this certificate for compliance with the standard

ISO9001: 2000

The Quality Management System Applies in the following area:
Production and Service of Semiconductor Diode and Chips and Bridge Rectifier

Exclusions:Design and Development Requirement

Date of issue: Jul. 06, 2006 Date of expiry: Jul. 05, 2009

The validity of the certificate depends on the surveillance audit by the certification body at regular intervals
The validity information of the certificate shall be inquired from the website www.cqc.com.cn

Signed by: Li huailin

CHINA QUALITY CERTIFICATION CENTRE

A10, Chaoyangmenwaidajie, Beijing, 100020, P.R.China
http://www.cqc.com.cn

Q 0013470

ENVIRONMENTAL MANAGEMENT CERTIFICATE

Certificate No.: 00107E20159R1M/5100

We hereby certify that
Leshan Radio Company Ltd.

No.287, West People Road, Midtown of Leshan City, Sichuan Province, P.R.China

by reason of its
Environmental Management System
has been awarded this certificate for compliance with the standard

ISO14001:2004
GB/T 24001-2004

The Environmental Management System Applies in the following area:
Design, Production of Semiconductor Diode and Chips and Bridge Rectifier and Related Management Activities

Certified since: Dec. 30, 2004 Valid from: Aug. 08, 2007 Valid until: Aug. 08, 2010

CHINA QUALITY CERTIFICATION CENTRE

Market Dept
Tel: +86-833-2150227
Fax: +86-833-2150003
Email: market@lrc.cn

Michael Int'l (HK) Ltd.
Tel: +852-2274 7090
Fax:+852-2274 7099
Email: xianggang@lrc.cn

International Sales Dept
Tel:+86-833-2122502
Fax:+86-833-2139045
Email: lrc.sales@lrc.cn

HongKong&TaiWan Sales Dept.
Tel:+86-833-2150342
Fax:+86-833-2139045
E-mail:hktw@lrc.cn

Distributor Management Dept
Tel:+86-833-2150079
Fax:+86-833-2139045
E-mail:gndl@lrc.cn

Mianyang Office
Tel/Fax: +86-816-253 0067
E-mail: mianyang@lrc.cn

Shanghai Office
Tel: +86-21-6447 6233
Fax: +86-21-6447 6243
E-mail: shanghai@lrc.cn

Shenzhen Office
Tel: +86-755-8323 4520
Fax: +86-755-8323 4521
E-mail: shenzhen@lrc.cn

Tianjin Office
Tel: +86-22-2323 5501
E-mail: tianjin@lrc.cn

Qingdao Office
Tel/Fax:+86-532-8363 2570
E-mail: qingdao@lrc.cn

市场处
电 话：0833-2150227
传 真：0833-2150003
邮 箱：market@lrc.cn

香港米切尔国际有限公司
电 话：00852-2274 7090
传 真：00852-2274 7099
邮 箱：xianggang@lrc.cn

国际销售
电 话：0833-2122502
传 真：0833-2139045
邮 箱：lrc.sales@lrc.cn

港台销售
电 话：0833-2150342
传 真：0833-2139045
邮 箱：hktw@lrc.cn

国内代理
电 话：0833-2150079
传 真：0833-2139045
邮 箱：gndl@lrc.cn

绵阳办事处
电话/传真：0816-253 0067
邮 箱：mianyang@lrc.cn

上海办事处
电 话：021-6447 6233
传 真：021-6447 6243
邮 箱：shanghai@lrc.cn

深圳办事处
电 话：0755-8323 4520
传 真：0755-8323 4521
邮 箱：shenzhen@lrc.cn

天津办事处
电话/传真：022-2323 5501
邮 箱：tianjin@lrc.cn

青岛办事处
电话/传真：0532-8363 2570
邮 箱：qingdao@lrc.cn

公司地址：中国.四川.乐山市人民西路287号 Address:287West People Road,Leshan,Sichuan,China
邮 编：614000 Zip Code:614000 公司主页：http://www.lrc.cn