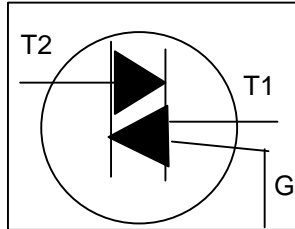
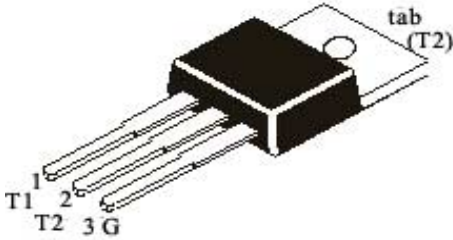


TRIAC

BT136D

**TO-220
Plastic Package**



For use in General Purpose Bidirectional Switching and Phase Control Applications

ABSOLUTE MAXIMUM RATINGS

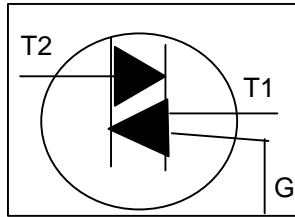
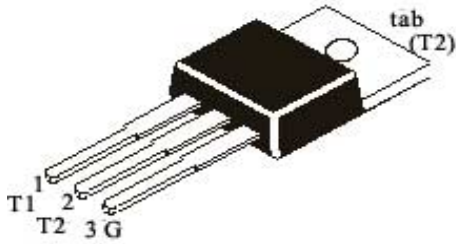
PARAMETER	SYMBOL	TEST CONDITION	VALUE	UNIT
Repetitive Peak Off State Voltage	V_{DRM}		600	V
RMS on State Current	$I_{T(RMS)}$	full sine wave, $T_{mb} \leq 107^\circ\text{C}$	4.0	A
Non Repetitive Peak on State Current	I_{TSM}	full sine wave, $T_j = 25^\circ\text{C}$ prior to Surge		
		$t = 20\text{ms}$	25	A
		$t = 16.7\text{ms}$	27	A
I^2t for Fusing	I^2t	$t = 10\text{ms}$	3.1	A^2s
Repetitive Rate of Rise of on State Current After Triggering	di_T/dt	$I_{TM} = 6\text{A}$, $I_G = 0.2\text{A}$, $di_G/dt = 0.2\text{A}/\mu\text{s}$		
		T2+ G+	50	$\text{A}/\mu\text{s}$
		T2+ G-	50	$\text{A}/\mu\text{s}$
		T2- G-	50	$\text{A}/\mu\text{s}$
		T2- G+	10	$\text{A}/\mu\text{s}$
Peak Gate Current	I_{GM}		2.0	A
Peak Gate Voltage	V_{GM}		5.0	V
Peak Gate Power	P_{GM}		5.0	W
Average Gate Power	$P_{G(AV)}$	Over any 20ms period	0.5	W
Storage Temperature	T_{stg}		- 40 to 150	$^\circ\text{C}$
Operating Junction Temperature	T_j		125	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Mounting Base	$R_{th(j-mb)}$	full cycle	3.0 max	K/W
		half cycle	3.7 max	K/W
Junction to Ambient	$R_{th(j-a)}$	in free air	60 typ	K/W

ELECTRICAL CHARACTERISTICS ($T_j = 25^\circ\text{C}$ unless specified otherwise)

PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Gate Trigger Current	I_{GT}	$V_D = 12\text{V}$, $I_T = 0.1\text{A}$			
		T2+ G+		5.0	mA
		T2+ G-		5.0	mA
		T2- G-		5.0	mA
		T2- G+		10	mA



ELECTRICAL CHARACTERISTICS (T_J=25°C unless specified otherwise)

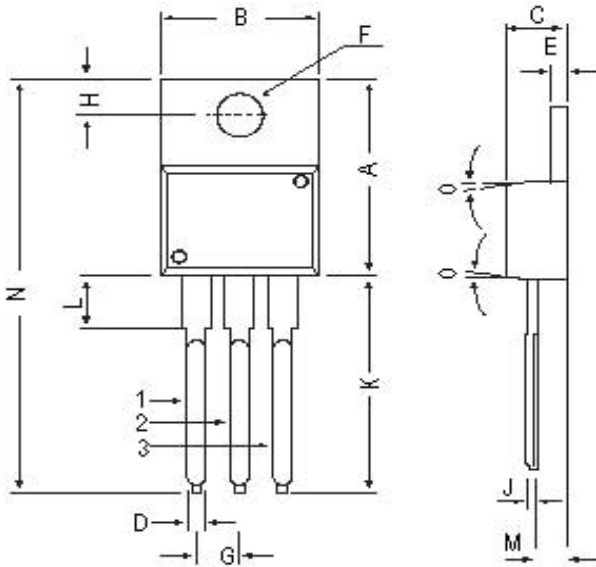
PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Latching Current	I _L	V _D =12V, I _{GT} =0.1A			
		T2+ G+		10	mA
		T2+ G-		15	mA
		T2- G-		10	mA
		T2- G+		30	mA
Holding Current	I _H	V _D =12V, I _{GT} =0.1A		10	mA
On State Voltage	V _T	I _T =5A		1.7	V
Gate Trigger Voltage	V _{GT}	V _D =12V, I _T =0.1A		1.5	V
		V _D =400V, I _T =0.1A, T _J =125°C	0.25		V
Off State Leakage Current	I _D	V _D = V _{DRM} =max, T _J =125°C		0.5	mA

DYNAMIC CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Critical Rate of Rise of off State Voltage	d _V D/dt	V _{DM} =67% V _{DRM} =max, T _J =125°C, exponential waveform, gate open circuit, R _{GK} =1KΩ		5		V/μs
Gate Controlled turn on time	t _{gt}	I _{TM} =6A, V _D =V _{DRM} max, I _G =0.1A, dI _G /dt=5A/μs		2		μs

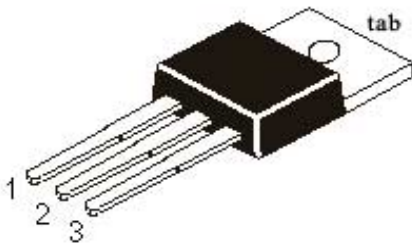
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TO-220 Plastic Package



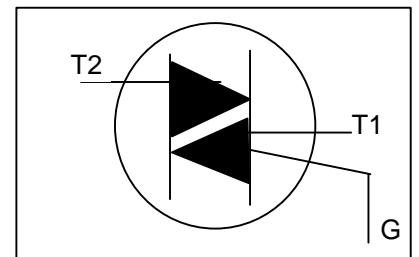
DIM	MIN	MAX
A	14.42	16.51
B	9.63	10.67
C	3.56	4.83
D	—	0.90
E	1.15	1.40
F	3.75	3.88
G	2.29	2.79
H	2.54	3.43
J	—	0.56
K	12.70	14.73
L	2.80	4.07
M	2.03	2.92
N	—	31.24
O	7 DEG	

All dimensions in mm.

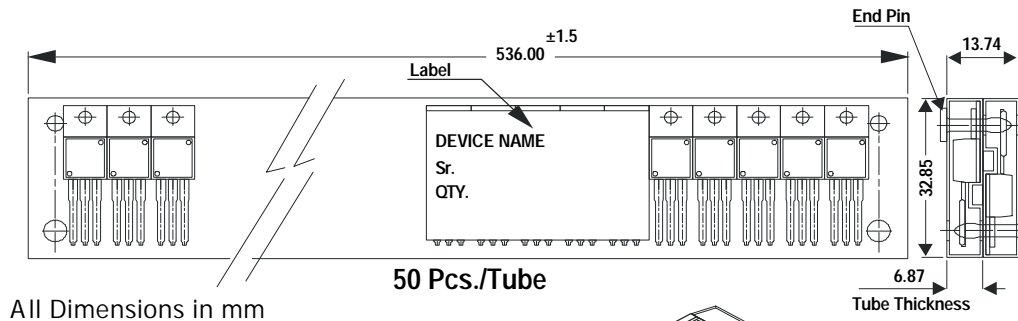


Pin Configuration

- 1. Main Terminal 1
- 2. Main Terminal 2
- 3. Gate
- tab Main Terminal 2



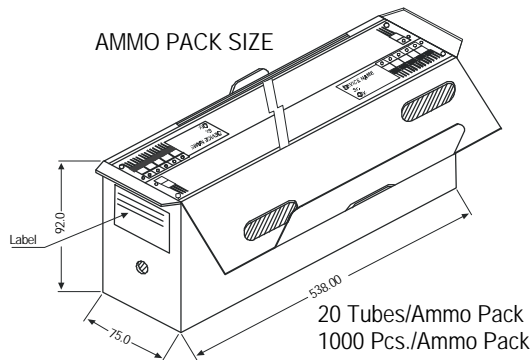
TO-220 Tube Packing



All Dimensions in mm

50 Pcs./Tube

AMMO PACK SIZE



20 Tubes/Ammo Pack
1000 Pcs./Ammo Pack

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-220	200 pcs/polybag	396 gm/200 pcs	3" x 7.5" x 7.5"	1.0K	17" x 15" x 13.5"	16.0K	36 kgs
	50 pcs/tube	120 gm/50 pcs	3.5" x 3.7" x 21.5"	1.0K	19" x 19" x 19"	10.0K	29 kgs

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