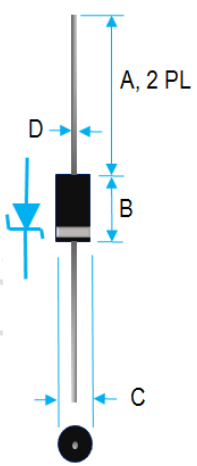


1500W AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSORS, 6.8V-440V

	Value Inch[mm]	
	Dim.	Min. Max.
A	1.000[25.40]	---
B	0.285[7.20]	0.375[9.50]
C	0.197[5.00]	0.220[5.59]
D	0.037[0.94]	0.042[1.07]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. LOW LEAKAGE GLASS PASSIVATED DESIGN
3. 1.5KW PEAK PULSE POWER CAPABILITY WITH A 10/1000 μ S WAVEFORM, 0.01% DUTY CYCLE
4. VERY FAST RESPONSE TIME
5. EXCELLENT CLAMPING CAPABILITY
6. MOLDED PLASTIC CASE DO-201AE
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
9. WEIGHT: 1.2 GRAMS
10. RoHS COMPLIANT. ADD SUFFIX "-H" FOR HALOGEN FREE PART. i.e. 1.5KE6.8A-H

ELECTRICAL CHARACTERISTICS

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITIONS	SYMBOL		UNIT
PEAK POWER DISSIPATION	WITH A 10/1000 μ S WAVEFORM, SEE NOTE 1 & FIG.1	P_{PPM}	1500	W
PEAK PULSE CURRENT	WITH A 10/1000 μ S WAVEFORM, SEE NOTE 1 & FIG.1	I_{PPM}	SEE TABLE	A
STEADY STATE POWER DISSIPATION	AT $T_L = 75^\circ\text{C}$, LEAD LENGTH 0.375"(9.5mm)	$P_{M(AV)}$	6.5	W
PEAK FORWARD SURGE CURRENT	8.3ms SINGLE HALF SINE-WAVE (JEDEC METHOD), SEE NOTE 2	I_{FSM}	200	A
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE	AT 100A FOR UNI-DIRECTIONAL TYPES ONLY, SEE NOTE 3	V_F	3.5/5.0 SEE NOTE 3	V
OPERATING JUNCTION TEMPERATURE RANGE		T_J	-55 TO +150	$^\circ\text{C}$
STORAGE TEMPERATURE RANGE		T_{STG}	-55 TO +150	$^\circ\text{C}$

NOTE : 1. PULSE TEST: 300 μ S PULSE WIDTH, 1% DUTY CYCLE.

2. MEASURE ON 8.3ms SINGLE HALF SINE-WAVE OR EQUIV. SQUARE WAVE, DUTY CYCLE 4 PULSE/MINUTE MAX.

3. $V_F < 3.5\text{V}$ FOR DEVICE WITH $V_{BR} \leq 200\text{V}$. $V_F < 5\text{V}$ FOR DEVICE WITH $V_{BR} > 201\text{V}$.

Part No. (Uni)	Part No. (Bi)	Reverse Stand-off Voltage	Breakdown Voltage @ I_T		Test Current I_T	Maximum Clamping Voltage		Maximum Reverse Leakage Current $I_R @ V_{RWM}$	Marking Code	
		V_{RWM}	V_{BR} Min	V_{BR} Max		V_C	I_{PP}		(Uni)	(Bi)
		Volts	Volts	Volts	mA	Volts	A	μA		
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10	10.5	142.8	1000	1.5KE6.8A	1.5KE6.8CA
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10	11.3	132.7	500	1.5KE7.5A	1.5KE7.5CA
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	123.9	200	1.5KE8.2A	1.5KE8.2CA
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.55	1.0	13.4	111.9	50	1.5KE9.1A	1.5KE9.1CA
1.5KE10A	1.5KE10CA	8.55	9.50	10.5	1.0	14.5	103.4	10	1.5KE10A	1.5KE10CA
1.5KE11A	1.5KE11CA	9.40	10.5	11.6	1.0	15.6	96.1	5	1.5KE11A	1.5KE11CA
1.5KE12A	1.5KE12CA	10.2	11.4	12.6	1.0	16.7	89.8	5	1.5KE12A	1.5KE12CA



1.5KE SERIES SPECIFICATION

Rev. A

Part No. (Uni)	Part No. (Bi)	Reverse Stand-off Voltage	Breakdown Voltage @ I _T		Test Current	Maximum Clamping Voltage		Maximum Reverse Leakage Current	Marking Code	
		V _{RWM}	V _{BR} Min	V _{BR} Max	I _T	V _C	I _{PP}	I _R @V _{RWM}	(Uni)	(Bi)
		Volts	Volts	Volts	mA	Volts	A	µA		
1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1.0	18.2	82.4	5	1.5KE13A	1.5KE13CA
1.5KE15A	1.5KE15CA	12.8	14.3	15.8	1.0	21.2	70.7	5	1.5KE15A	1.5KE15CA
1.5KE16A	1.5KE16CA	13.6	15.2	16.8	1.0	22.5	67.0	5	1.5KE16A	1.5KE16CA
1.5KE18A	1.5KE18CA	15.3	17.1	18.9	1.0	25.5	59.5	5	1.5KE18A	1.5KE18CA
1.5KE20A	1.5KE20CA	17.1	19.0	21.0	1.0	27.7	54.0	5	1.5KE20A	1.5KE20CA
1.5KE22A	1.5KE22CA	18.8	20.9	23.1	1.0	30.6	49.0	5	1.5KE22A	1.5KE22CA
1.5KE24A	1.5KE24CA	20.5	22.8	25.2	1.0	33.2	45.0	5	1.5KE24A	1.5KE24CA
1.5KE27A	1.5KE27CA	23.1	25.7	28.4	1.0	37.5	40.0	5	1.5KE27A	1.5KE27CA
1.5KE30A	1.5KE30CA	25.6	28.5	31.5	1.0	41.4	36.0	5	1.5KE30A	1.5KE30CA
1.5KE33A	1.5KE33CA	28.2	31.4	34.7	1.0	45.7	33.0	5	1.5KE33A	1.5KE33CA
1.5KE36A	1.5KE36CA	30.8	34.2	37.8	1.0	49.9	30.0	5	1.5KE36A	1.5KE36CA
1.5KE39A	1.5KE39CA	33.3	37.1	41.0	1.0	53.9	28.0	5	1.5KE39A	1.5KE39CA
1.5KE43A	1.5KE43CA	36.8	40.9	45.2	1.0	59.3	25.3	5	1.5KE43A	1.5KE43CA
1.5KE47A	1.5KE47CA	40.2	44.7	49.4	1.0	64.8	23.2	5	1.5KE47A	1.5KE47CA
1.5KE51A	1.5KE51CA	43.6	48.5	53.6	1.0	70.1	21.4	5	1.5KE51A	1.5KE51CA
1.5KE56A	1.5KE56CA	47.8	53.2	58.8	1.0	77.0	19.5	5	1.5KE56A	1.5KE56CA
1.5KE62A	1.5KE62CA	53.0	58.9	65.1	1.0	85.0	17.7	5	1.5KE62A	1.5KE62CA
1.5KE68A	1.5KE68CA	58.1	64.6	71.4	1.0	92.0	16.3	5	1.5KE68A	1.5KE68CA
1.5KE75A	1.5KE75CA	64.1	71.3	78.8	1.0	103.0	14.6	5	1.5KE75A	1.5KE75CA
1.5KE82A	1.5KE82CA	70.1	77.9	86.1	1.0	113.0	13.3	5	1.5KE82A	1.5KE82CA
1.5KE91A	1.5KE91CA	77.8	86.5	95.5	1.0	125.0	12.0	5	1.5KE91A	1.5KE91CA
1.5KE100A	1.5KE100CA	85.5	95.0	105.0	1.0	137.0	11.0	5	1.5KE100A	1.5KE100CA
1.5KE110A	1.5KE110CA	94.0	105.0	116.0	1.0	152.0	9.9	5	1.5KE110A	1.5KE110CA
1.5KE120A	1.5KE120CA	102.0	114.0	126.0	1.0	165.0	9.1	5	1.5KE120A	1.5KE120CA
1.5KE130A	1.5KE130CA	111.0	124.0	137.0	1.0	179.0	8.4	5	1.5KE130A	1.5KE130CA
1.5KE150A	1.5KE150CA	128.0	143.0	158.0	1.0	207.0	7.2	5	1.5KE150A	1.5KE150CA
1.5KE160A	1.5KE160CA	136.0	152.0	168.0	1.0	219.0	6.8	5	1.5KE160A	1.5KE160CA
1.5KE170A	1.5KE170CA	145.0	162.0	179.0	1.0	234.0	6.4	5	1.5KE170A	1.5KE170CA
1.5KE180A	1.5KE180CA	154.0	171.0	189.0	1.0	246.0	6.1	5	1.5KE180A	1.5KE180CA
1.5KE200A	1.5KE200CA	171.0	190.0	210.0	1.0	274.0	5.5	5	1.5KE200A	1.5KE200CA
1.5KE220A	1.5KE220CA	185.0	209.0	231.0	1.0	328.0	4.6	5	1.5KE220A	1.5KE220CA
1.5KE250A	1.5KE250CA	214.0	237.0	263.0	1.0	344.0	4.4	5	1.5KE250A	1.5KE250CA
1.5KE300A	1.5KE300CA	256.0	285.0	315.0	1.0	414.0	3.6	5	1.5KE300A	1.5KE300CA
1.5KE350A	1.5KE350CA	300.0	332.0	368.0	1.0	482.0	3.1	5	1.5KE350A	1.5KE350CA
1.5KE400A	1.5KE400CA	342.0	380.0	420.0	1.0	548.0	2.7	5	1.5KE400A	1.5KE400CA
1.5KE440A	1.5KE440CA	376.0	418.0	462.0	1.0	602.0	2.5	5	1.5KE440A	1.5KE440CA

- Note:
1. V_{BR} measured after I_T applied for 300µs, I_T=square wave pulse or equivalent
 2. Surge current waveform per Fig. 3 and derated per Fig. 2
 3. For bi-directional types having V_{RWM} of 10 volts or less, the I_R limit is doubled
 4. Suffix 'C' denotes bi-directional devices. Suffix 'A' denotes 5% tolerance devices, no suffix denotes 10% tolerance devices.
 5. All terms and symbols are consistent with ANS/IEEE C62.35

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - PEAK PULSE POWER RATING CURVE

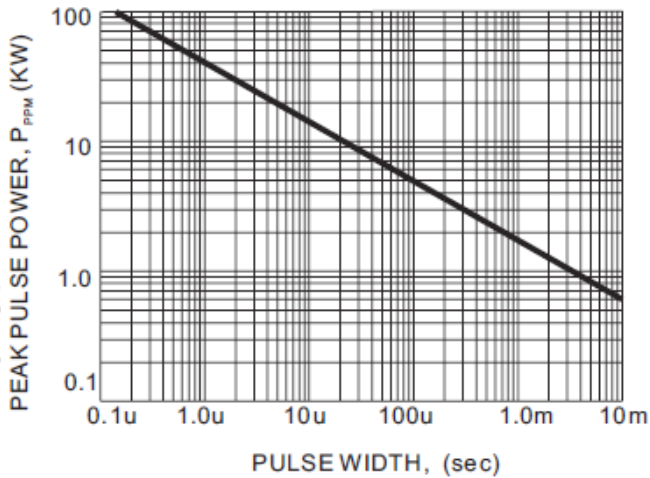


FIG.2 - PULSE DERATING CURVE

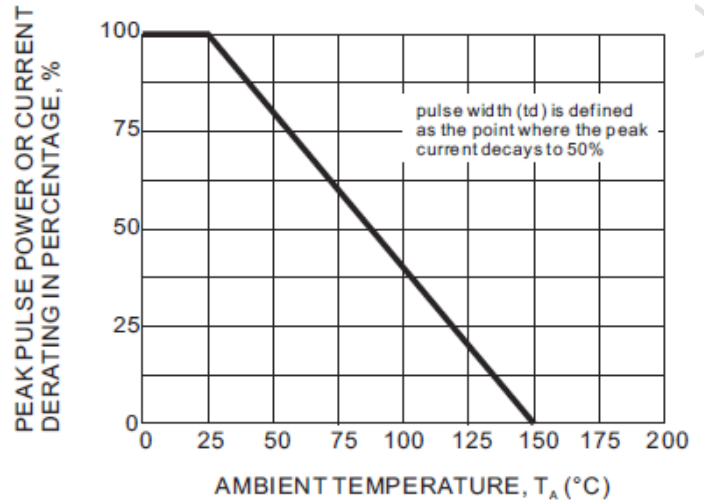


FIG.3 - PULSE WAVEFORM

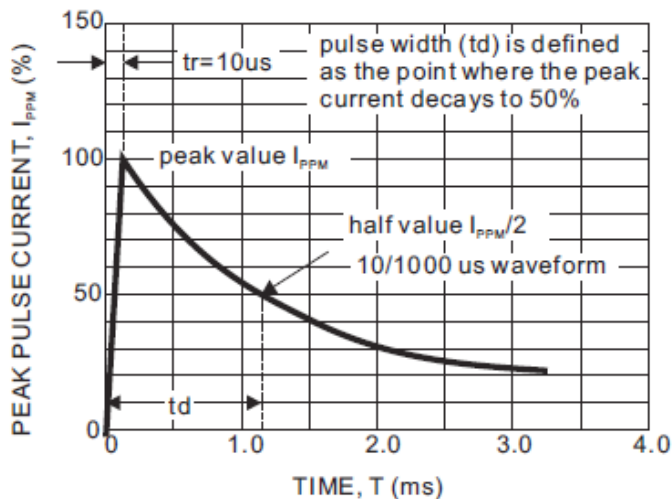


FIG.4 - TYPICAL JUNCTION CAPACITANCE

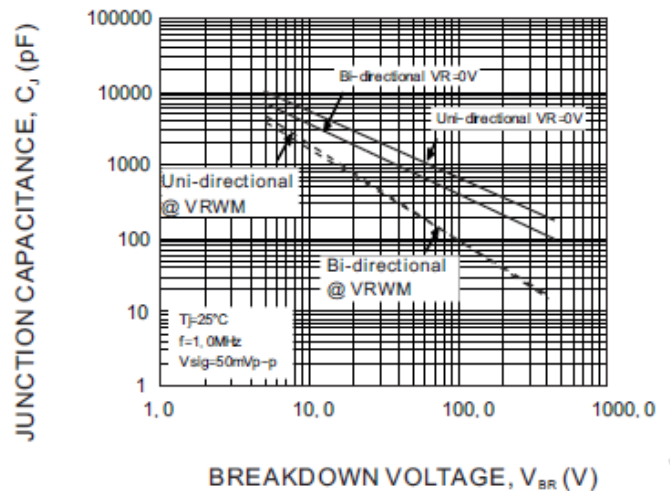


FIG.5 - STEADY STATE POWER DERATING CURVE

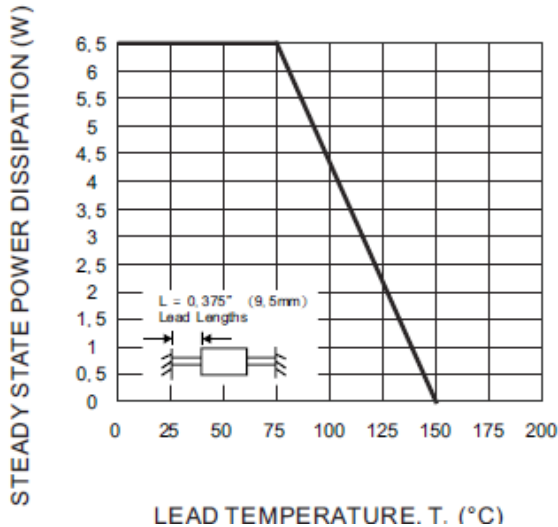


FIG.6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

