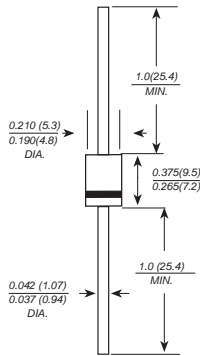


1.5KE6.8A THRU 1.5KE600A

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

Breakdown Voltage:6.8-600 Volts Peak Pulse Power:1500 Watts

DO-201AE



Dimensions in inches and (millimeters)

FEATURE

- ◆ 1500w peak pulse power capability
- ◆ Excellent clamping capability
- ◆ Low incremental surge resistance
- ◆ Fast response time: typically less than 1.0ps from 0v to V_{BR} for unidirectional and 5.0ns for bidirectional types.
- ◆ High temperature soldering guaranteed:
265°C/10S/9.5mm lead length at 5 lbs tension

MECHANICAL DATA

Case: JEDEC DO-201AE molded plastic body over passivated junction

Terminals: Plated axial leads, solderable per MIL-STD 750 method 2026

Polarity: Color band denotes cathode except for bidirectional types

Mounting Position: Any

Weight: 0.04 ounce, 1.10 grams

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	VALUE	UNITS
Peak power dissipation (Note 1)	PPPM	Minimum 1500	Watts
Peak pulse reverse current (Note 1, Fig.1)	IPPM	See Table 1	Amps
Steady state power dissipation (Note 2)	$P_{M(AV)}$	5.0	Watts
Peak forward surge current (Note 3)	I_{FSM}	200	Amps
Maximum instantaneous forward voltage at 100A for unidirectional only (Note 4)	V_F	3.5/5.0	Volts
Operating & Storage Temperature Range	T_{STG}, T_J	-55 to + 175	°C

Notes:

1. 1.10/1000ms waveform non-repetitive current pulse, per Fig.3 and derated above $T_a=25^\circ\text{C}$ per Fig.2
2. $T_L=75^\circ\text{C}$, lead lengths 9.5mm, Mounted on copper pad area of (20x20mm) Fig.5
3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.
4. $V_F=3.5\text{V}$ max. for devices of $V_{(BR)}<200\text{V}$, and $V_F=5.0\text{V}$ max. for devices of $V_{(BR)}>200\text{V}$



ELECTRICAL CHARACTERISTICS (at TA=25°C unless otherwise noted)

Part Number		Reverse Stand off Voltage VR	Breakdown Voltage VBR (Volts) @ IT		Test Current IT	Maximum Clamping Voltage VC @ Ipp	Maximum Peak Pulse Current @ Ipp	Maximum Reverse Leakage IR@VR
(Uni)	(Bi)	(Volts)	MIN	AX	(mA)	(V)	(A)	(µA)
1.5KE6.8A	1.5KE6.8CA	5.8	6.45	7.14	10	10.5	144.8	1000
1.5KE7.5A	1.5KE7.5CA	6.4	7.13	7.88	10	11.3	134.5	500
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	12.1	125.6	200
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.5	1	13.4	113.4	50
1.5KE10A	1.5KE10CA	8.55	9.5	10.5	1	14.5	104.8	10
1.5KE11A	1.5KE11CA	9.4	10.5	11.6	1	15.6	97.4	5
1.5KE12A	1.5KE12CA	10.2	11.4	12.6	1	16.7	91	5
1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1	18.2	83.5	1
1.5KE15A	1.5KE15CA	12.8	14.3	15.8	1	21.2	71.7	1
1.5KE16A	1.5KE16CA	13.6	15.2	16.8	1	22.5	67.6	1
1.5KE18A	1.5KE18CA	15.3	17.1	18.9	1	25.2	60.3	1
1.5KE20A	1.5KE20CA	17.1	19	21	1	27.7	54.9	1
1.5KE22A	1.5KE22CA	18.8	20.9	23.1	1	30.6	49.7	1
1.5KE24A	1.5KE24CA	20.5	22.8	25.2	1	33.2	45.8	1
1.5KE27A	1.5KE27CA	23.1	25.7	28.4	1	37.5	40.5	1
1.5KE30A	1.5KE30CA	25.6	28.5	31.5	1	41.4	36.7	1
1.5KE33A	1.5KE33CA	28.2	31.4	34.7	1	45.7	33.3	1
1.5KE36A	1.5KE36CA	30.8	34.2	37.8	1	49.9	30.5	1
1.5KE39A	1.5KE39CA	33.3	37.1	41	1	53.9	28.2	1
1.5KE43A	1.5KE43CA	36.8	40.9	45.2	1	59.3	25.6	1
1.5KE47A	1.5KE47CA	40.2	44.7	49.4	1	64.8	23.5	1
1.5KE51A	1.5KE51CA	43.6	48.5	53.6	1	70.1	21.7	1
1.5KE56A	1.5KE56CA	47.8	53.2	58.8	1	77	19.7	1
1.5KE62A	1.5KE62CA	53	58.9	65.1	1	85	17.9	1
1.5KE68A	1.5KE68CA	58.1	64.6	71.4	1	92	16.5	1
1.5KE75A	1.5KE75CA	64.1	71.3	78.8	1	103	14.8	1
1.5KE82A	1.5KE82CA	70.1	77.9	86.1	1	113	13.5	1
1.5KE91A	1.5KE91CA	77.8	86.5	95.5	1	125	12.2	1
1.5KE100A	1.5KE100CA	85.5	95	105	1	137	11.1	1
1.5KE110A	1.5KE110CA	94	105	116	1	152	10	1
1.5KE120A	1.5KE120CA	102	114	126	1	165	9.2	1
1.5KE130A	1.5KE130CA	111	124	137	1	179	8.5	1
1.5KE150A	1.5KE150CA	128	143	158	1	207	7.3	1
1.5KE160A	1.5KE160CA	136	152	168	1	219	6.9	1
1.5KE170A	1.5KE170CA	145	162	179	1	234	6.5	1
1.5KE180A	1.5KE180CA	154	171	189	1	246	6.2	1
1.5KE200A	1.5KE200CA	171	190	210	1	274	5.5	1
1.5KE220A	1.5KE220CA	185	209	231	1	328	4.6	1
1.5KE250A	1.5KE250CA	214	237	263	1	344	4.4	1
1.5KE300A	1.5KE300CA	256	285	315	1	414	3.7	1
1.5KE350A	1.5KE350CA	300	332	368	1	482	3.2	1
1.5KE400A	1.5KE400CA	342	380	420	1	548	2.8	1
1.5KE440A	1.5KE440CA	376	418	462	1	602	2.5	1
1.5KE480A	1.5KE480CA	408	456	504	1	658	2.3	1
1.5KE510A	1.5KE510CA	434	485	535	1	698	2.1	1
1.5KE530A	1.5KE530CA	477	503.5	556.5	1	725	2.1	1
1.5KE540A	1.5KE540CA	459	513	567	1	740	2	1
1.5KE550A	1.5KE550CA	495	522.5	577.5	1	760	2	1
1.5KE560A	1.5KE560CA	504	532	588	1	780	1.9	1
1.5KE600A	1.5KE600CA	512	570	630	1	828	1.8	1

For bidirectional type having V_R of 10 volts and less, the I_R limit is double.

For parts without A, the V_{BR} is + 0% and V_C is 5% higher than with A parts.

RATINGS AND CHARACTERISTIC CURVES 1.5KE6.8A THUR 1.5KE600A

FIG. 1-PEAK PULSE POWER RATING CURVE

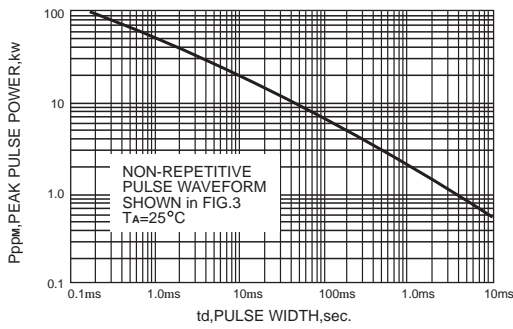


FIG. 2-PULSE DERATING CURVE

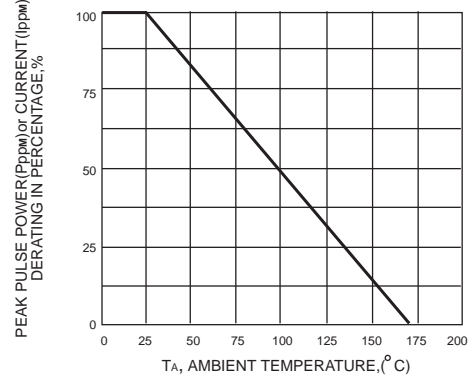


FIG. 3-PULSE WAVEFORM

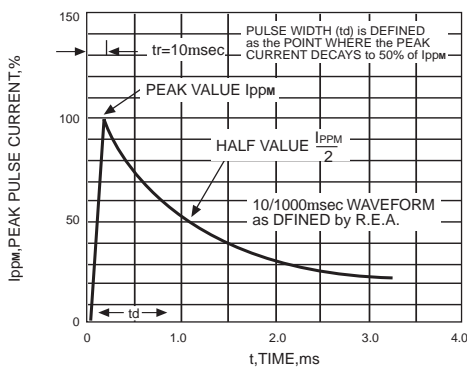


FIG. 4-TYPICAL JUNCTION CAPACITANCE UNIDIRECTIONAL

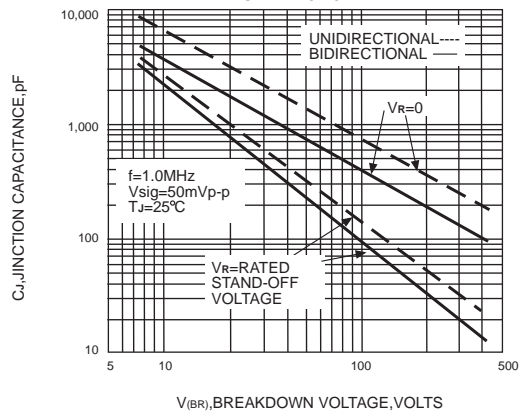


FIG. 5-STEADY STATE POWER DERATING CURVE

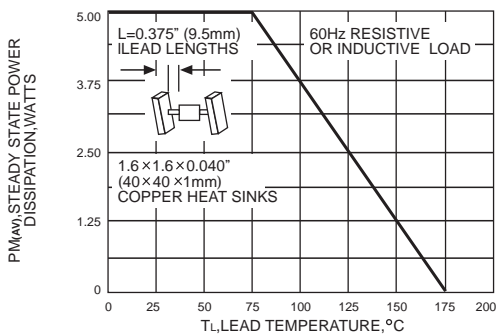


FIG. 6-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL ONLY

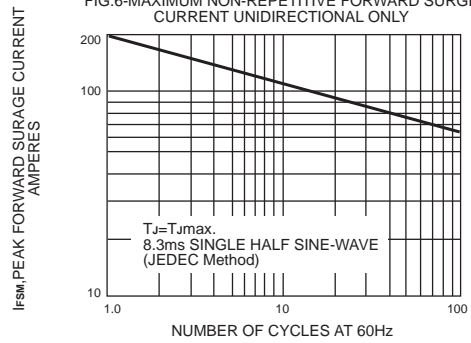
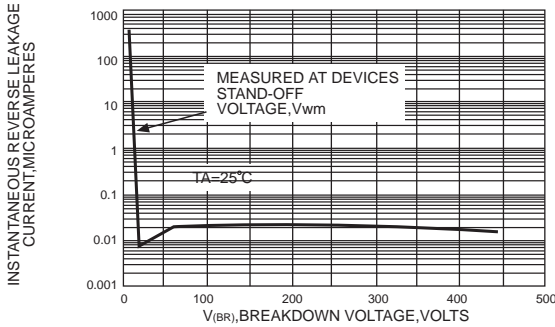


FIG. 7-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Note: Specification is subject to change without further notice. For more details and updates, please visit our website.