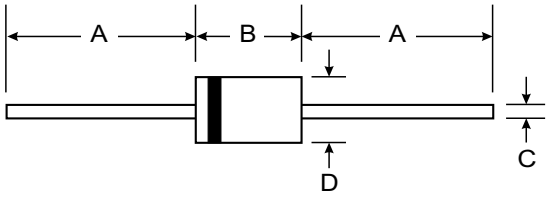
1.5KE6.8(C)A - 1.5KE400(C)A

1500W TRANSIENT VOLTAGE SUPPRESSOR

Features

- 1500W Peak Pulse Power Dissipation
- Voltage Range 6.8V - 400V
- Constructed with Glass Passivated Die
- Uni- and Bidirectional Versions Available
- Excellent Clamping Capability
- Fast Response Time



Mechanical Data

- Case: Transfer Molded Epoxy
- Leads: Axial, Solderable per MIL-STD-202 Method 208
- Marking: Unidirectional - Type Number and Cathode Band
- Marking: Bidirectional - Type Number Only
- Approx. Weight: 1.12 grams
- Mounting Position: Any

DO-201		
Dim	**Min**	**Max**
A	25.40	—
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Power Dissipation at t_p = 1.0ms (Non repetitive current pulse, derated above T_A = 25°C)	P_{pk}	1500	W
Steady State Power Dissipation at T_L = 75°C Lead Lengths 9.5 mm (Mounted on Copper Land Area of 20mm^2)	P_d	5.0	W
Peak Forward Surge Current, 8.3 Single Half Sine Wave Superimposed on Rated Load (8.3ms Single Half Sine Wave, Duty Cycle = 4 pulses per minute maximum)	I_{FSM}	200	A
Forward Voltage @ I_F = 50A 300µs Square Wave Pulse, Unidirectional Only — $V_{BR} \leq 100V$ $V_{BR} > 100V$	V_F	3.5 5.0	V
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +175	°C

Notes:
1. Suffix 'C' denotes bi-directional device.
2. For bi-directional devices having V_R of 10 volts and under, the I_R limit is doubled.
3. The type number marking may contain a "V" or dash in place of decimal point.

Type Number (Notes 1,3)	Type Number (Notes 1,3)	Reverse Standoff Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Reverse Leakage (Note 2) @ V_R	Max. clamping Voltage @ I_{pp}	Max. Peak Pulse Current	Max. Voltage Temp. Variation of V_{BR}
(UNI)	(BI)	V_{RWM} (V)	Min (V)	Max (V)	I_t (mA)	I_R (μA)	V_C (V)	I_{PP} (A)	%/°C
1.5KE6.8A	1.5KE6.8CA	5.80	6.45	7.14	10	1000	10.5	143.0	0.057
1.5KE7.5A	1.5KE7.5CA	6.40	7.13	7.88	10	500	11.3	132.0	0.061
1.5KE8.2A	1.5KE8.2CA	7.02	7.79	8.61	10	200	12.1	124.0	0.065
1.5KE9.1A	1.5KE9.1CA	7.78	8.65	9.55	1.0	50	13.4	112.0	0.068
1.5KE10A	1.5KE10CA	8.55	9.50	10.50	1.0	10	14.5	103.0	0.073
1.5KE11A	1.5KE11CA	9.40	10.50	11.60	1.0	5.0	15.6	96.0	0.075
1.5KE12A	1.5KE12CA	10.20	11.40	12.60	1.0	5.0	16.7	90.0	0.078
1.5KE13A	1.5KE13CA	11.10	12.40	13.70	1.0	5.0	18.2	82.0	0.081
1.5KE15A	1.5KE15CA	12.80	14.30	15.80	1.0	5.0	21.2	71.0	0.084
1.5KE16A	1.5KE16CA	13.60	15.20	16.80	1.0	5.0	22.5	67.0	0.086
1.5KE18A	1.5KE18CA	15.30	17.10	18.90	1.0	5.0	25.2	59.5	0.088
1.5KE20A	1.5KE20CA	17.10	19.00	21.00	1.0	5.0	27.7	54.0	0.090
1.5KE22A	1.5KE22CA	18.80	20.90	23.10	1.0	5.0	30.6	49.0	0.092
1.5KE24A	1.5KE24CA	20.50	22.80	25.20	1.0	5.0	33.2	45.0	0.094
1.5KE27A	1.5KE27CA	23.10	25.70	28.40	1.0	5.0	37.5	40.0	0.096
1.5KE30A	1.5KE30CA	25.60	28.50	31.50	1.0	5.0	41.4	36.0	0.097
1.5KE33A	1.5KE33CA	28.20	31.40	34.70	1.0	5.0	45.7	33.0	0.098
1.5KE36A	1.5KE36CA	30.80	34.20	37.80	1.0	5.0	49.9	30.0	0.099
1.5KE39A	1.5KE39CA	33.30	37.10	41.00	1.0	5.0	53.9	28.0	0.100
1.5KE43A	1.5KE43CA	36.80	40.90	45.20	1.0	5.0	59.3	25.3	0.101
1.5KE47A	1.5KE47CA	40.20	44.70	49.40	1.0	5.0	64.8	23.2	0.101
1.5KE51A	1.5KE51CA	43.60	48.50	53.60	1.0	5.0	70.1	21.4	0.102
1.5KE56A	1.5KE56CA	47.80	53.20	58.80	1.0	5.0	77.0	19.5	0.103
1.5KE62A	1.5KE62CA	53.00	58.90	65.10	1.0	5.0	85.0	17.7	0.104
1.5KE68A	1.5KE68CA	58.10	64.60	71.40	1.0	5.0	92.0	16.3	0.104
1.5KE75A	1.5KE75CA	64.10	71.30	78.80	1.0	5.0	103.0	14.6	0.105
1.5KE82A	1.5KE82CA	70.10	77.90	86.10	1.0	5.0	113.0	13.3	0.105
1.5KE91A	1.5KE91CA	77.80	86.50	95.50	1.0	5.0	125.0	12.0	0.106
1.5KE100A	1.5KE100CA	85.50	95.00	105.00	1.0	5.0	137.0	11.0	0.106
1.5KE110A	1.5KE110CA	94.00	105.00	116.00	1.0	5.0	152.0	9.9	0.107
1.5KE120A	1.5KE120CA	102.00	114.00	126.00	1.0	5.0	165.0	9.1	0.107
1.5KE130A	1.5KE130CA	111.00	124.00	137.00	1.0	5.0	179.0	8.4	0.107
1.5KE150A	1.5KE150CA	128.00	143.00	158.00	1.0	5.0	207.0	7.2	0.108
1.5KE160A	1.5KE160CA	136.00	152.00	168.00	1.0	5.0	219.0	6.8	0.108
1.5KE170A	1.5KE170CA	145.00	162.00	179.00	1.0	5.0	234.0	6.4	0.108
1.5KE180A	1.5KE180CA	154.00	171.00	189.00	1.0	5.0	246.0	6.1	0.108
1.5KE200A	1.5KE200CA	171.00	190.00	210.00	1.0	5.0	274.0	5.5	0.108
1.5KE220A	1.5KE220CA	185.00	209.00	231.00	1.0	5.0	328.0	4.6	0.108
1.5KE250A	1.5KE250CA	214.00	237.00	263.00	1.0	5.0	344.0	5.0	0.110
1.5KE300A	1.5KE300CA	256.00	285.00	315.00	1.0	5.0	414.0	5.0	0.110
1.5KE350A	1.5KE350CA	300.00	332.00	368.00	1.0	5.0	482.0	4.0	0.110
1.5KE400A	1.5KE400CA	342.00	380.00	420.00	1.0	5.0	548.0	4.0	0.110

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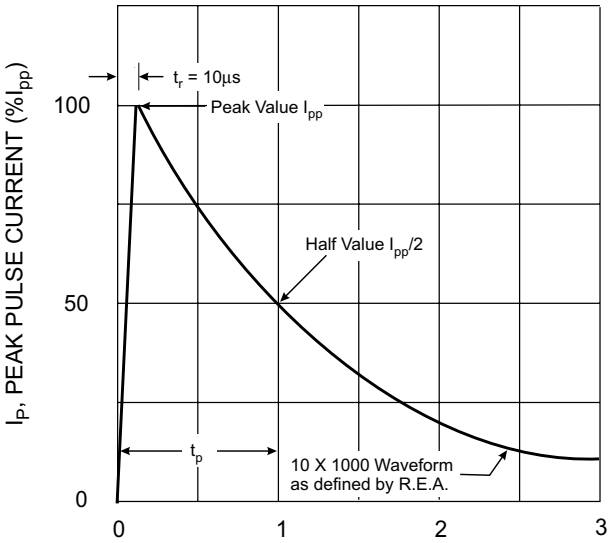

Fig. 1 Pulse Waveform

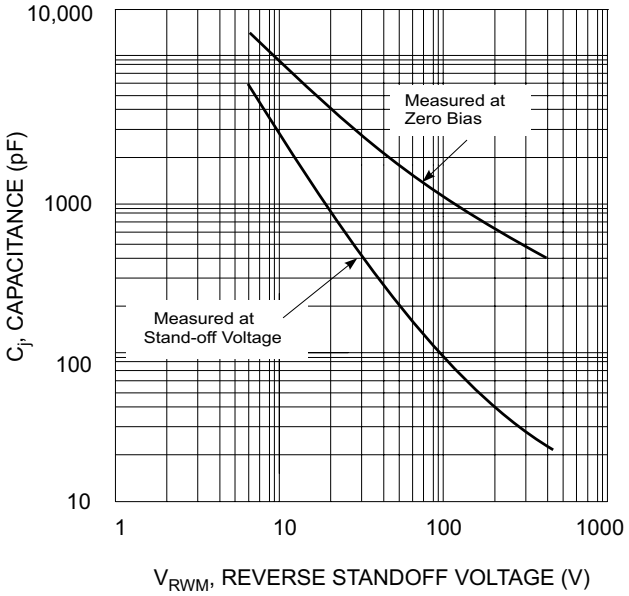

Fig. 2 Typical Junction Capacitance

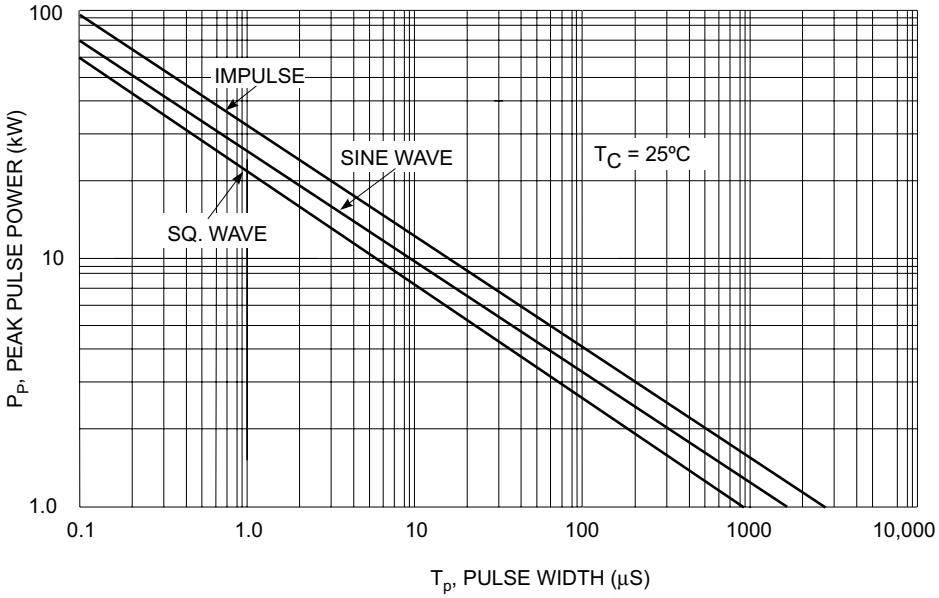

Fig. 3 Pulse Rating Curve

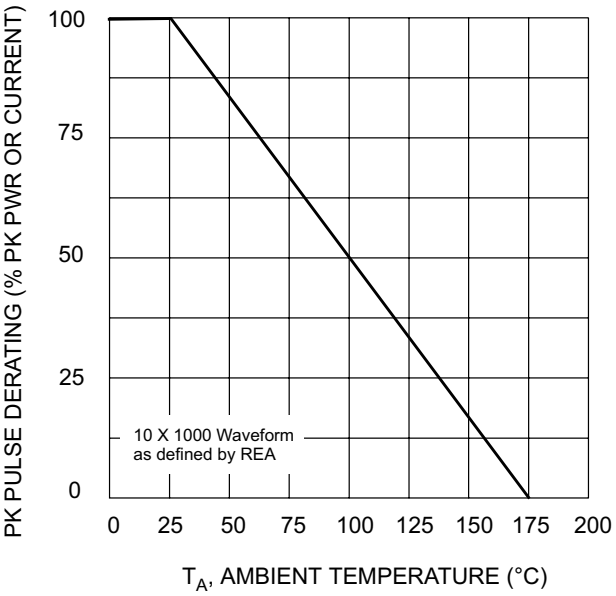

Fig. 4 Pulse Derating Curve

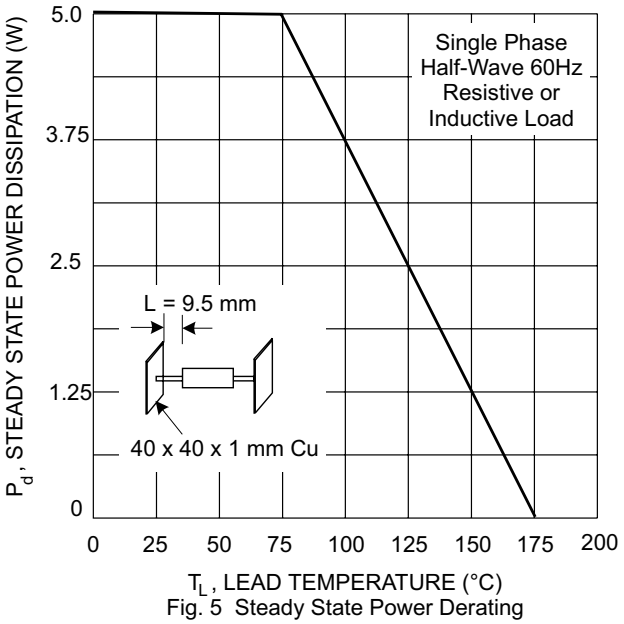

Fig. 5 Steady State Power Derating