

15KP Series

15000 WATT PEAK POWER TRANSIENT VOLTAGE SUPPRESSORS



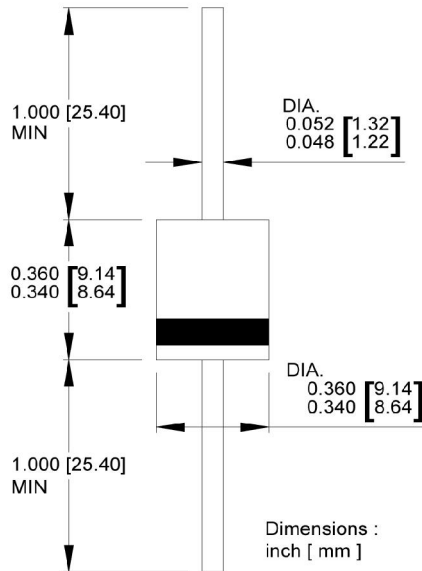
Features

- Glass passivated chip
- 15000 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Very fast response time
- RoHS compliant

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

R-6/P600



Maximum Ratings($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000 μ s waveform ⁽¹⁾	P_{PP}	15000	W
Peak pulse current with a 10/1000 μ s waveform ⁽¹⁾	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$	P_D	8.0	W
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only ⁽²⁾	I_{FSM}	500	A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

(1) Non-repetitive current pulse per Fig.5 and derated above $T_A = 25^\circ\text{C}$ per Fig.1

(2) Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum

Ratings and Characteristics Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

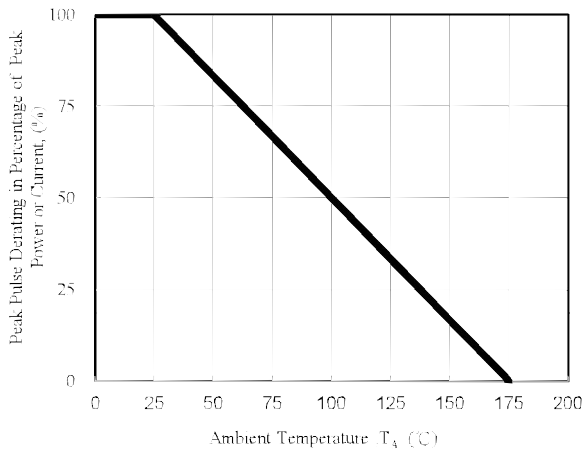


Fig. 1 - Pulse Derating Curve

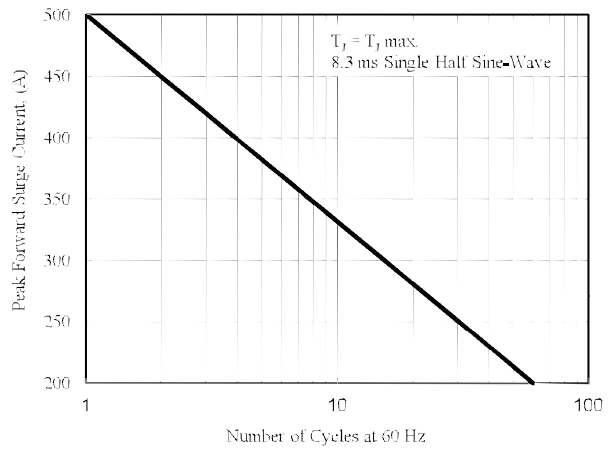


Fig. 2 - Maximum Non-Repetitive Surge Current

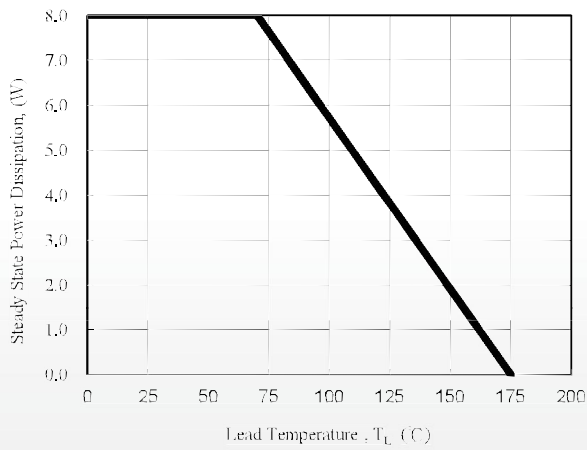


Fig. 3 - Steady State Power Derating Curve

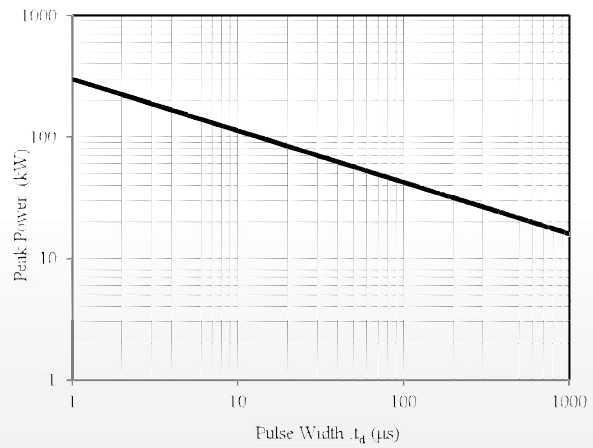


Fig. 4 - Peak Pulse Power Rating Curve

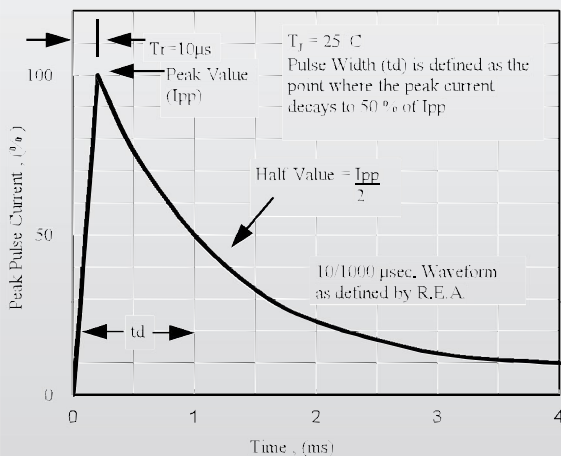


Fig. 5 - Pulse Waveform

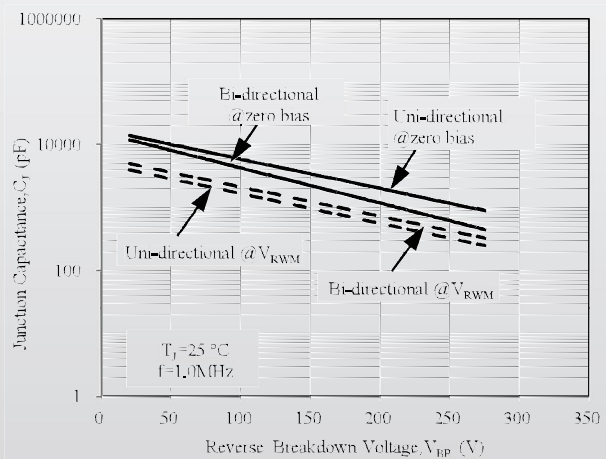


Fig. 6 - Typical Junction Capacitance

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage I_R @ V_{RWM} (μA)	Working Peak Reverse Voltage V_{RWM} (V)	Maximum Reverse Surge Current I_{PP} (A)	Maximum Clamping Voltage V_C @ I_{PP} (V)
		Min (V)	Max (V)	I_T (mA)				
15KP17A	15KP17CA	18.99	20.79	50	5000	17	515.4	29.3
15KP18A	15KP18CA	20.11	22.01	50	5000	18	488.7	30.9
15KP20A	15KP20CA	22.34	24.46	20	1500	20	440.2	34.3
15KP22A	15KP22CA	24.57	26.91	10	500	22	407.0	37.1
15KP24A	15KP24CA	26.81	29.35	5	150	24	371.0	40.7
15KP26A	15KP26CA	29.04	31.80	5	50	26	343.2	44.0
15KP28A	15KP28CA	31.28	34.24	5	25	28	317.9	47.5
15KP30A	15KP30CA	33.51	36.70	5	15	30	297.8	50.7
15KP33A	15KP33CA	36.90	40.40	5	2	33	276.1	54.7
15KP36A	15KP36CA	40.20	44.00	5	2	36	252.5	59.8
15KP40A	15KP40CA	44.70	48.90	5	2	40	229.5	65.8
15KP43A	15KP43CA	48.00	52.60	5	2	43	216.3	69.8
15KP45A	15KP45CA	50.30	55.00	5	2	45	207.4	72.8
15KP48A	15KP48CA	53.60	58.70	5	2	48	194.3	77.7
15KP51A	15KP51CA	57.00	62.40	5	2	51	182.1	82.9
15KP54A	15KP54CA	60.30	66.00	5	2	54	172.2	87.7
15KP58A	15KP58CA	64.80	70.90	5	2	58	161.0	93.8
15KP60A	15KP60CA	67.00	73.40	5	2	60	155.0	97.4
15KP64A	15KP64CA	71.50	78.30	5	2	64	144.9	104.2
15KP70A	15KP70CA	78.20	85.60	5	2	70	132.9	113.6
15KP75A	15KP75CA	83.80	91.70	5	2	75	123.8	122.0
15KP78A	15KP78CA	87.10	95.40	5	2	78	119.7	126.1
15KP85A	15KP85CA	94.90	104.00	5	2	85	109.7	137.6
15KP90A	15KP90CA	100.50	110.10	5	2	90	103.7	145.6
15KP100A	15KP100CA	111.70	122.30	5	2	100	93.6	161.3
15KP110A	15KP110CA	122.90	134.50	5	2	110	84.5	178.6
15KP120A	15KP120CA	134.00	146.80	5	2	120	78.5	192.3
15KP130A	15KP130CA	145.20	159.00	5	2	130	72.5	208.3
15KP150A	15KP150CA	167.60	183.50	5	2	150	62.4	241.9
15KP160A	15KP160CA	178.70	195.70	5	2	160	58.4	258.6
15KP170A	15KP170CA	189.90	207.90	5	2	170	55.4	272.7
15KP180A	15KP180CA	201.10	220.10	5	2	180	52.3	288.5
15KP200A	15KP200CA	223.40	244.60	5	2	200	47.3	319.1
15KP220A	15KP220CA	245.70	269.10	5	2	220	35.2	428.6
15KP240A	15KP240CA	268.10	293.50	5	2	240	39.3	384.6
15KP260A	15KP260CA	290.40	318.00	5	2	260	36.2	416.7
15KP280A	15KP280CA	312.80	342.40	5	2	280	33.2	454.5

Note:

1. For Bi-Directional devices having V_R of 30 volts and under, the I_R limit is double