

Reverse Voltage: 17 to 280 V

Peak Pulse Power: 15000 W

Axial Lead Transient Voltage Suppressors

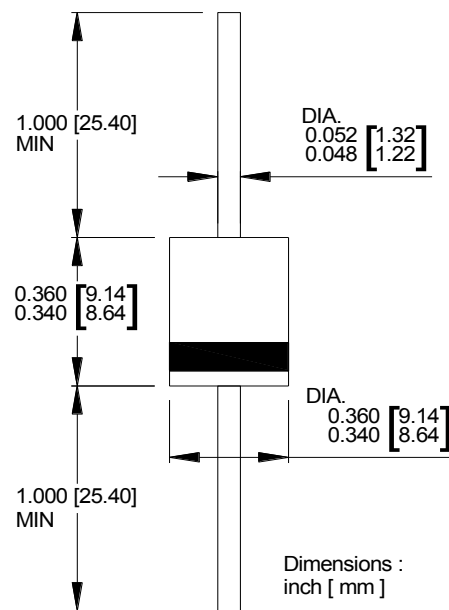
Features

- Glass passivated chip
- 15000 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01 %
- AEC-Q101 qualified
- 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 guranteed
- 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 +175	$^\circ\text{C}$

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)

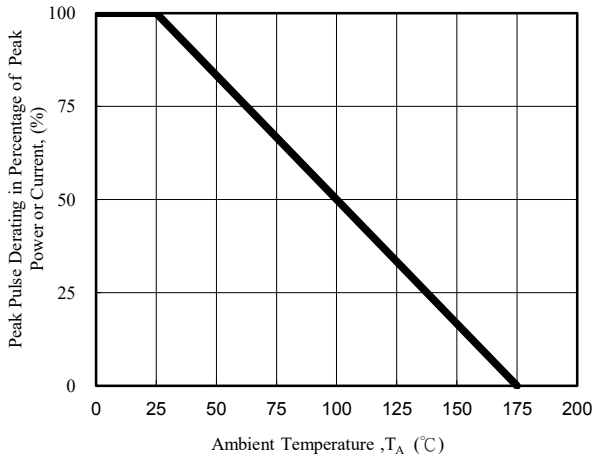


Fig. 1 - Pulse Derating Curve

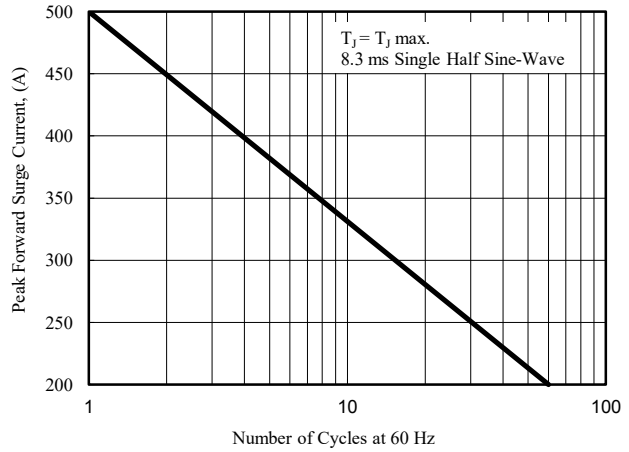


Fig. 2 - Maximum Non-Repetitive Surge Current

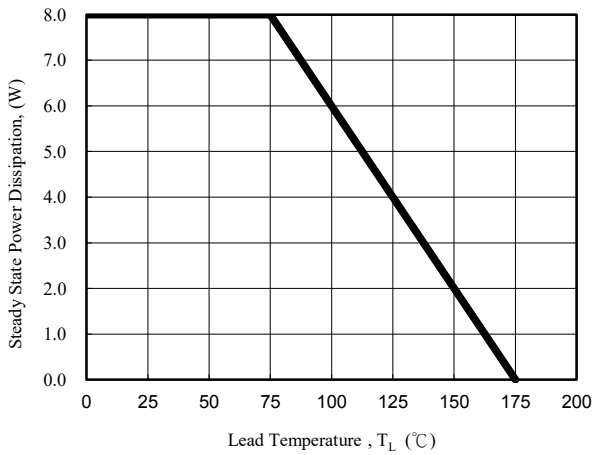


Fig. 3 - Steady State Power Derating Curve

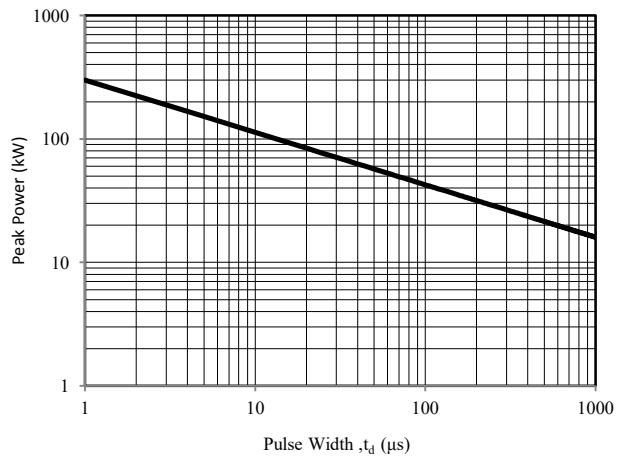


Fig. 4 - Peak Pulse Power Rating Curve

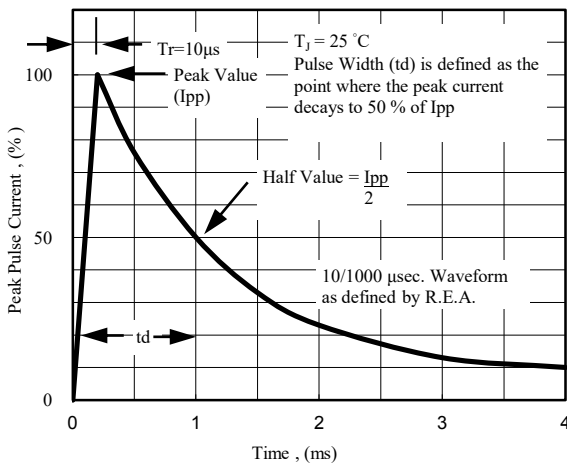


Fig. 5 - Pulse Waveform

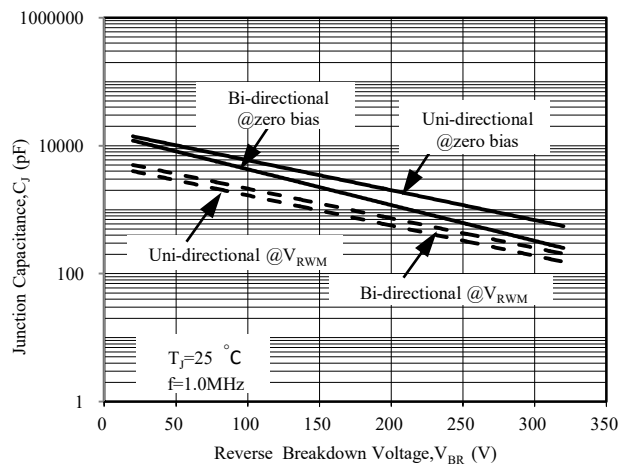


Fig. 6 - Typical Junction Capacitance

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)				
15LDP17A	15LDP17CA	18.99	20.79	50	5000	17	515.4	29.3
15LDP18A	15LDP18CA	20.11	22.01	50	5000	18	488.7	30.9
15LDP20A	15LDP20CA	22.34	24.46	20	1500	20	440.2	34.3
15LDP22A	15LDP22CA	24.57	26.91	10	500	22	407.0	37.1
15LDP24A	15LDP24CA	26.81	29.35	5	150	24	371.0	40.7
15LDP26A	15LDP26CA	29.04	31.80	5	50	26	343.2	44.0
15LDP28A	15LDP28CA	31.28	34.24	5	25	28	317.9	47.5
15LDP30A	15LDP30CA	33.51	36.70	5	15	30	297.8	50.7
15LDP33A	15LDP33CA	36.90	40.40	5	2	33	276.1	54.7
15LDP36A	15LDP36CA	40.20	44.00	5	2	36	252.5	59.8
15LDP40A	15LDP40CA	44.70	48.90	5	2	40	229.5	65.8
15LDP43A	15LDP43CA	48.00	52.60	5	2	43	216.3	69.8
15LDP45A	15LDP45CA	50.30	55.00	5	2	45	207.4	72.8
15LDP48A	15LDP48CA	53.60	58.70	5	2	48	194.3	77.7
15LDP51A	15LDP51CA	57.00	62.40	5	2	51	182.1	82.9
15LDP54A	15LDP54CA	60.30	66.00	5	2	54	172.2	87.7
15LDP58A	15LDP58CA	64.80	70.90	5	2	58	161.0	93.8
15LDP60A	15LDP60CA	67.00	73.40	5	2	60	155.0	97.4
15LDP64A	15LDP64CA	71.50	78.30	5	2	64	144.9	104.2
15LDP70A	15LDP70CA	78.20	85.60	5	2	70	132.9	113.6
15LDP75A	15LDP75CA	83.80	91.70	5	2	75	123.8	122.0
15LDP78A	15LDP78CA	87.10	95.40	5	2	78	119.7	126.1
15LDP85A	15LDP85CA	94.90	104.00	5	2	85	109.7	137.6
15LDP90A	15LDP90CA	100.50	110.10	5	2	90	103.7	145.6
15LDP100A	15LDP100CA	111.70	122.30	5	2	100	93.6	161.3
15LDP110A	15LDP110CA	122.90	134.50	5	2	110	84.5	178.6
15LDP120A	15LDP120CA	134.00	146.80	5	2	120	78.5	192.3
15LDP130A	15LDP130CA	145.20	159.00	5	2	130	72.5	208.3
15LDP150A	15LDP150CA	167.60	183.50	5	2	150	62.4	241.9
15LDP160A	15LDP160CA	178.70	195.70	5	2	160	58.4	258.6
15LDP170A	15LDP170CA	189.90	207.90	5	2	170	55.4	272.7
15LDP180A	15LDP180CA	201.10	220.10	5	2	180	52.3	288.5
15LDP200A	15LDP200CA	223.40	244.60	5	2	200	47.3	319.1
15LDP220A	15LDP220CA	245.70	269.10	5	2	220	42.4	356.0
15LDP240A	15LDP240CA	268.10	293.50	5	2	240	39.3	384.6
15LDP260A	15LDP260CA	290.40	318.00	5	2	260	36.2	416.7
15LDP280A	15LDP280CA	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