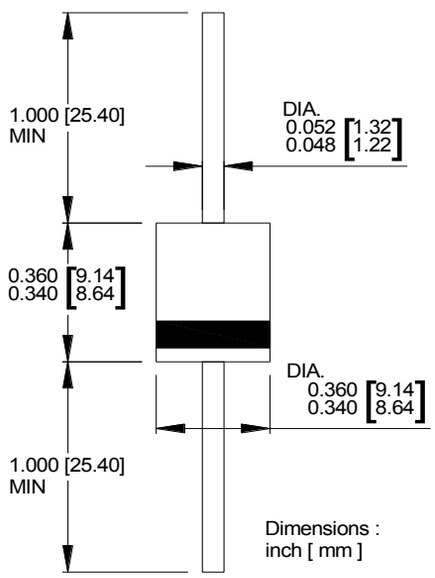
Reverse Voltage: 20 to 300 V
Peak Pulse Power: 20000 W

Axial Lead
Transient Voltage Suppressors

R-6/P600



Features

- Glass passivated chip
- 20000 W peak pulse power capability with a 10/1000 μs 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 guranteed
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	UNIT
Peak power dissipation with a 10/1000μs waveform(1)	P_{PP}	20000	W
Peak pulse current wih a 10/1000μs waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at T_L = 75 °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	°C

Note:

(1)Non-repetitive current pulse per Fig.5 and derated above T_A= 25 °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℃ unless otherwise noted)

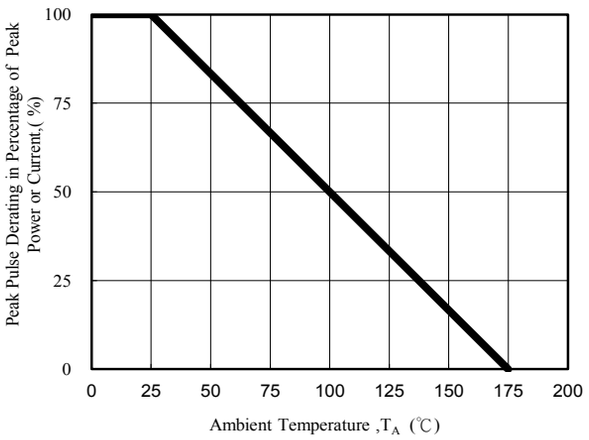


Fig. 1 - Pulse Derating Curve

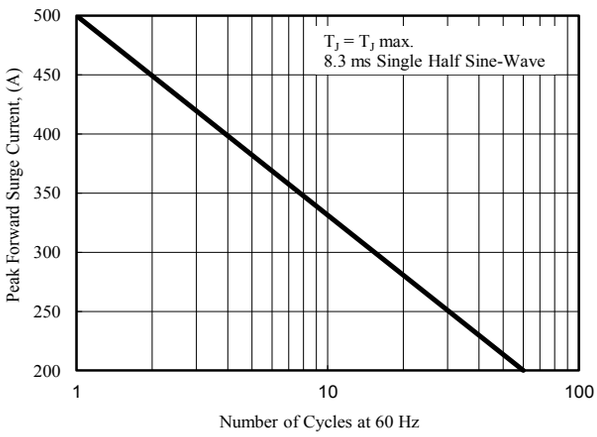


Fig. 2 - Maximum Non-Repetitive Surge Current

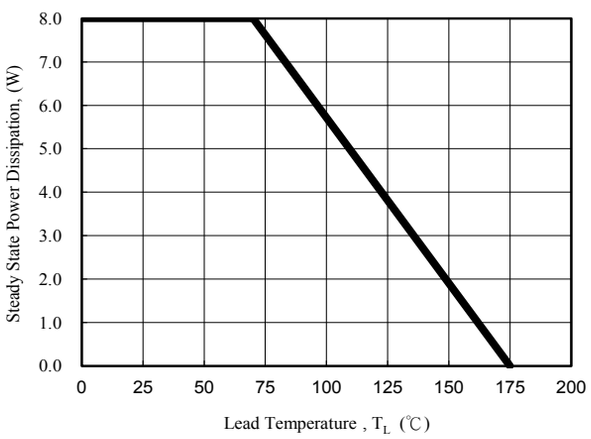


Fig. 3 - Steady State Power Derating Curve

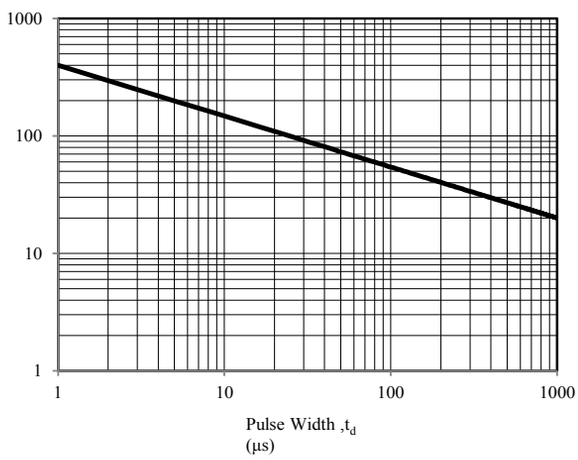


Fig. 4 - Peak Pulse Power Rating Curve

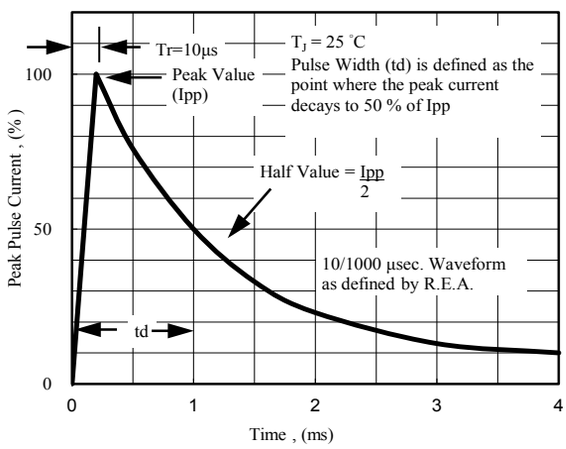


Fig. 5 - Pulse Waveform

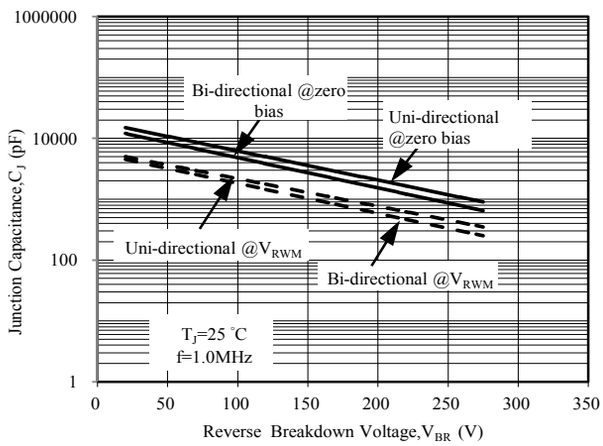


Fig. 6 - Typical Junction Capacitance

Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage V_{BR} @ I_T			Maximum Reverse Leakage I_R @V_{RWM} (uA)	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)				
20KP20A	20KP20CA	22.34	24.57	50	5000	20	548.9	36.8
20KP24A	20KP24CA	26.81	29.49	50	5000	24	490.3	41.2
20KP26A	20KP26CA	29.04	31.94	50	2000	26	451.9	44.7
20KP28A	20KP28CA	31.28	34.41	50	1000	28	420.8	48.0
20KP30A	20KP30CA	33.51	36.86	5	250	30	392.2	51.5
20KP32A	20KP32CA	35.74	39.31	5	150	32	372.0	54.3
20KP34A	20KP34CA	38.00	41.80	5	50	34	351.3	57.5
20KP36A	20KP36CA	40.20	44.22	5	20	36	328.5	61.5
20KP40A	20KP40CA	44.70	49.17	5	15	40	297.9	67.8
20KP44A	20KP44CA	49.10	54.01	5	2	44	277.9	72.7
20KP48A	20KP48CA	53.60	58.96	5	2	48	254.4	79.4
20KP52A	20KP52CA	58.10	63.91	5	2	52	235.4	85.8
20KP56A	20KP56CA	62.60	68.86	5	2	56	218.1	92.6
20KP60A	20KP60CA	67.00	73.70	5	2	60	207.0	97.6
20KP64A	20KP64CA	71.50	78.65	5	2	64	194.2	104.0
20KP68A	20KP68CA	76.00	83.60	5	2	68	183.6	110.0
20KP72A	20KP72CA	80.40	88.44	5	2	72	174.1	116.0
20KP80A	20KP80CA	89.40	98.34	5	2	80	155.4	130.0
20KP88A	20KP88CA	98.30	108.13	5	2	88	142.3	142.0
20KP96A	20KP96CA	107.20	117.92	5	2	96	130.3	155.0
20KP104A	20KP104CA	116.20	127.82	5	2	104	120.2	168.0
20KP112A	20KP112CA	125.10	137.61	5	2	112	111.0	182.0
20KP120A	20KP120CA	134.00	147.40	5	2	120	104.1	194.0
20KP132A	20KP132CA	147.40	162.14	5	2	132	94.8	213.0
20KP144A	20KP144CA	160.80	176.88	5	2	144	87.1	232.0
20KP160A	20KP160CA	178.70	196.57	5	2	160	78.3	258.0
20KP172A	20KP172CA	192.10	211.31	5	2	172	72.9	277.0
20KP180A	20KP180CA	201.10	221.21	5	2	180	69.4	291.0
20KP192A	20KP192CA	214.50	235.95	5	2	192	65.4	309.0
20KP204A	20KP204CA	227.90	250.96	5	2	204	61.4	329.0
20KP216A	20KP216CA	241.30	265.43	5	2	216	58.0	348.0
20KP232A	20KP232CA	259.10	285.01	5	2	232	54.0	374.0
20KP240A	20KP240CA	268.10	294.91	5	2	240	52.2	387.0
20KP256A	20KP256CA	286.00	314.60	5	2	256	49.0	412.0
20KP280A	20KP280CA	312.80	344.08	5	2	280	44.8	451.0
20KP300A	20KP300CA	335.10	368.61	5	2	300	41.8	483.0

Note:

1. For Bi-Directional devices having V_R of 40 volts and under, the I_R limit is double