



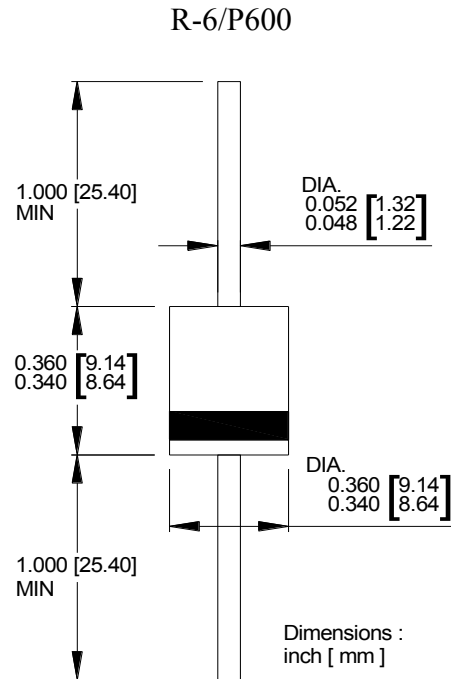
Reverse Voltage: 20 to 48 V
Peak Pulse Power: 12000 W

Features

- Glass passivated chip
- 12000 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 guranteed
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any



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}	12000	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}	400	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



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

Part Number		Reverse Stand off Voltage V_{RWM} (V)	Breakdown Voltage V_{BR} (Volts) $@I_T$		Test Current I_T (mA)	Maximum Clamping Voltage $V_C@I_{PP}$ (V)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage $I_R@V_{RWM}$ (μA)
UNI-POLAR	BI-POLAR		MIN	MAX				
12KP20A	12KP20CA	20	22.2	24.5	5	34.3	349	20
12KP22A	12KP22CA	22	24.4	27.0	5	37.1	323	15
12KP24A	12KP24CA	24	26.7	29.5	5	40.5	294	5
12KP26A	12KP26CA	26	28.9	31.9	5	44.0	272	5
12KP28A	12KP28CA	28	31.1	34.4	5	47.5	252	5
12KP30A	12KP30CA	30	33.3	36.8	5	50.7	236	5
12KP33A	12KP33CA	33	36.7	40.6	5	54.8	219	5
12KP36A	12KP36CA	36	40.0	44.2	5	59.7	200	5
12KP40A	12KP40CA	40	44.4	49.1	5	65.8	182	5
12KP43A	12KP43CA	43	47.8	52.8	5	69.7	171	5
12KP48A	12KP48CA	48	53.6	58.7	5	77.7	154	5



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

Figure 1. Peak Pulse Power Rating Curve

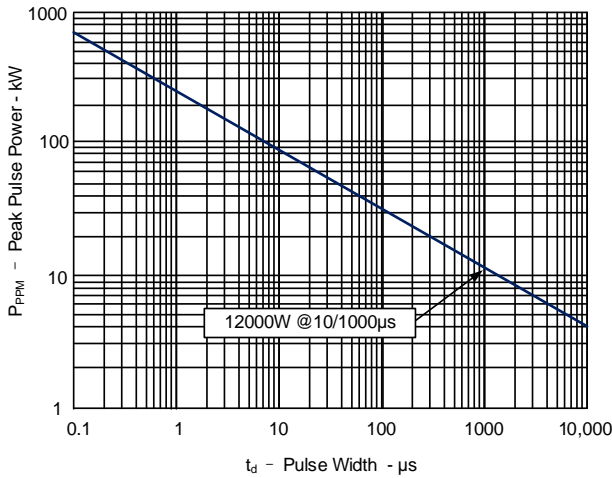


Figure 2. Pulse Derating Curve

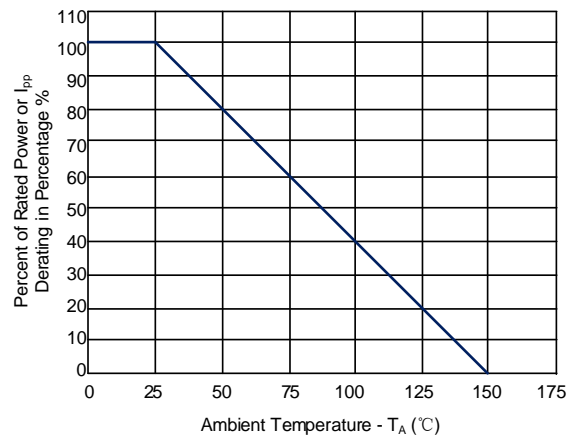


Figure 3. Pulse Waveform

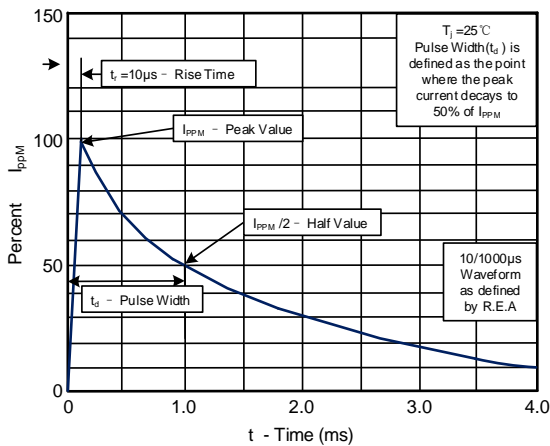


Figure 4. Steady State Power Dissipation Derating Curve

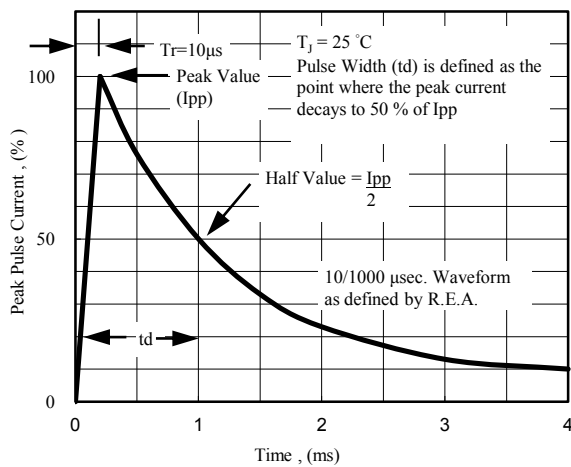
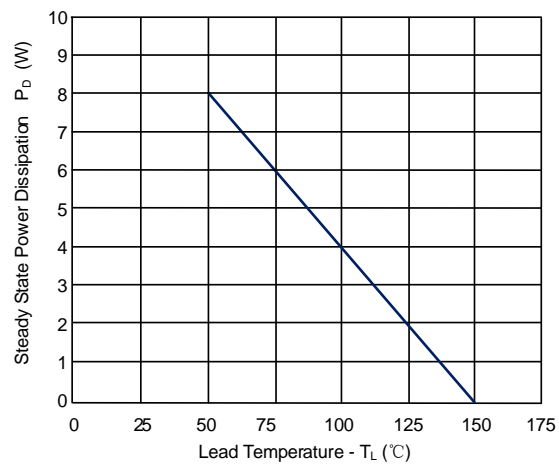


Fig. 5 - Pulse Waveform

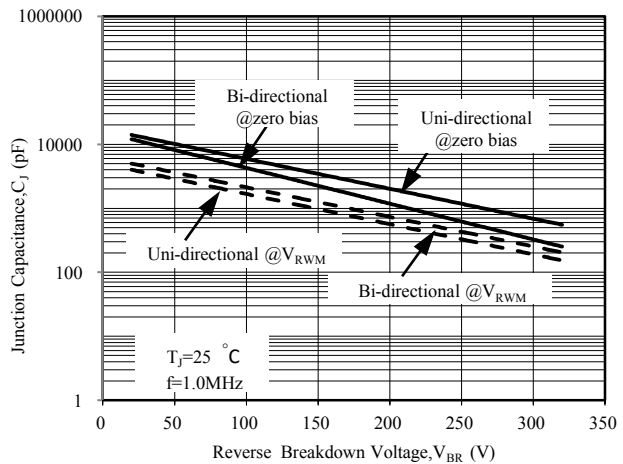


Fig. 6 - Typical Junction Capacitance

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
R-6	500/AMMO	5000	44X28X31	12.00	10.00