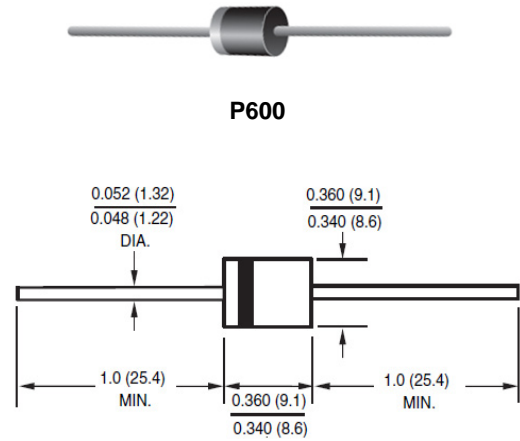


Features

- Glass passivated chip
- 5000 W peak pulse power capability with a 10/1000 μ s waveform, repetitive rate (duty cycle):0.01 %
- Low leakage
- Excellent clamping capability
- 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



Dimensions in inches (millimeters)

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

Parameter	Symbol	Value	Unit
Peak Power Dissipation with a 10/1000 μ s Waveform ⁽¹⁾	P_{PP}	5000	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
Maximum Instantaneous Forward Voltage at 100 A for Unidirectional Only ⁽³⁾	V_F	3.5/5.0	V
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

(3) $V_F < 3.5\text{V}$ for devices of $V_{BR} < 200\text{V}$ and $V_F < 5.0\text{V}$ for devices of $V_{BR} > 201\text{V}$

5KP300A thru 5KP440CA

Transient Voltage Suppressor
 Peak Pulse Power 5000W Stand-off Voltage 300V to 440V

Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number (Uni)	Part Number (Bi)	Breakdown Voltage VBR @IT			Maximum Reverse Leakage IR @VRWM (uA)	Working Peak Reverse Voltage VRWM (V)	Maximum Reverse Surge Current IPP (A)	Maximum Clamping Voltage VC @IPP (V)
		Min (V)	Max (V)	IT (mA)				
5KP300A	5KP300CA	335.00	371.0	5	2	300	10.29	486.0
5KP350A	5KP350CA	391.00	432.0	5	2	350	8.82	567.0
5KP400A	5KP400CA	447.00	494.0	5	2	400	7.72	648.0
5KP440A	5KP440CA	492.00	543.0	5	2	440	7.01	713.0

Note:

1. Suffix 'A' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device
2. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices
3. For Bi-Directional devices having V_R of 10 volts and under, the I_R limit is double

Typical Characteristic Curves

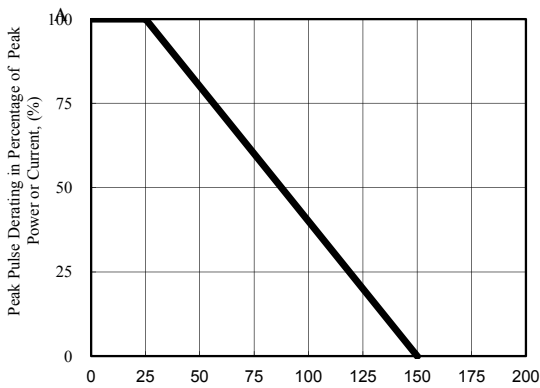


Fig. 1 - Pulse Derating Curve

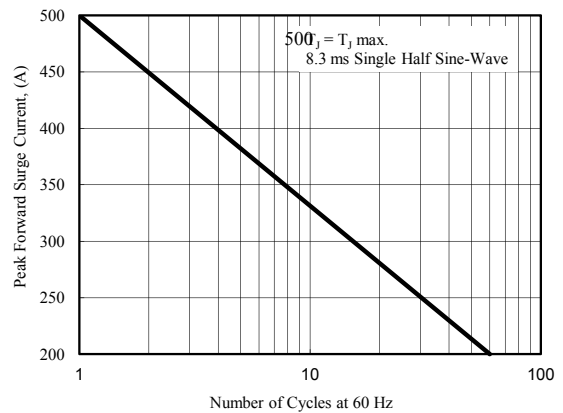


Fig. 2 - Maximum Non-Repetitive Surge Current

Typical Characteristic Curves

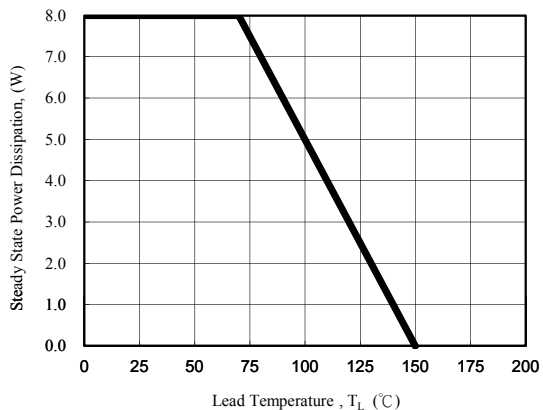


Fig. 3 - Steady State Power Derating Curve

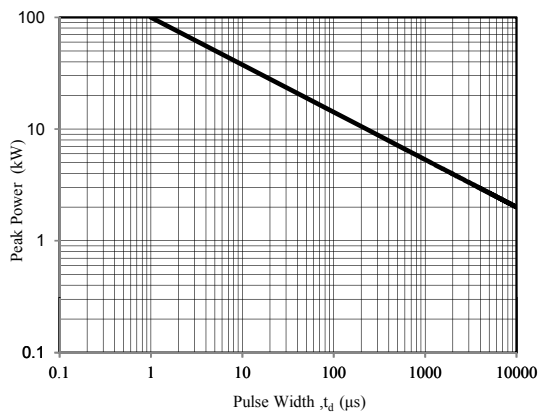


Fig. 4 - Peak Pulse Power Rating Curve

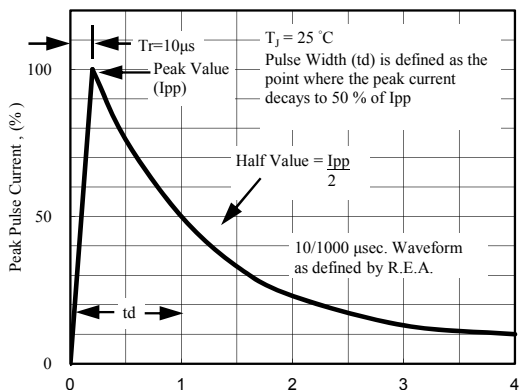


Fig. 5 - Pulse Waveform

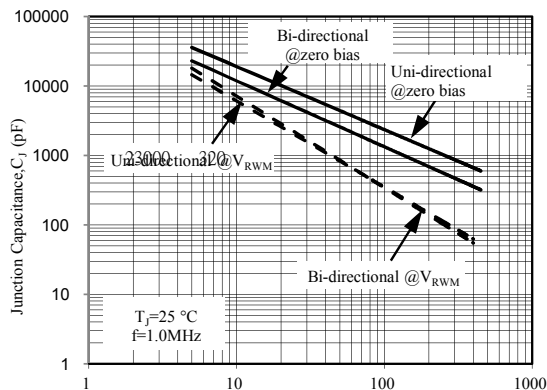


Fig. 6 - Typical Junction Capacitance