MVP Series

Description

MVP Series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Glass passivated chip
- 6000 W peak pulse power capability with a 10/1000μs waveform
- Low leakage
- Terminal: solder plated, solderable per J-STD-002
- Fast response time: typically less than 1.0ps from 0V to VBR min.
- Complies with following standards: GB3836

Mechanical Data

- Case: Moulded plastic over glass passivated junction
- Terminal: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- Mounting Position: Any
- Polarity: : Color band denotes cathode end except Bipolar

Maximum Ratings (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000μs waveform[1]	P_{PP}	6000	Watts
Peak pulse current wih a 10/1000μs waveform	Ipp	See Next Table	A
Power dissipation on infinite heatsink at TL = 25 °C	P_D	8	W
Peak forward surge current 8.3 ms single half sine-	I_{FSM}	400	A
Typical thermal resistance junction to ambient	$R_{\theta JA}$	40	℃/W
Operating junction and storage temperature range	T_J T_{STG}	-55 to +150	°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number (Bi)	Reverse Stand off Voltage V_R (Volts)	Breakdown Voltage V_{BR} (Volts)@I_T		Test Current I_T(mA)	Maximum Reverse Leakage I_R@ V_R(μA)	Maximum Peak Pulse Current I pp (A)	Maximum Clamping Voltage V_C @ I_{pp} (V)
		Min .V	Max .V				
MVP24CA	24	26.7	29.5	5	2	154.24	38.9
MVP26CA	26	28.9	31.9	5	2	142.5	42.1
MVP30CA	30	33.3	36.8	5	2	124.0	48.4
MVP33CA	33	36.7	40.6	5	2	112.6	53.3
MVP36CA	36	40.0	44.2	5	2	103.3	58.1

Rating & Characteristic Curves

Figure 1- Pulse Derating Curve

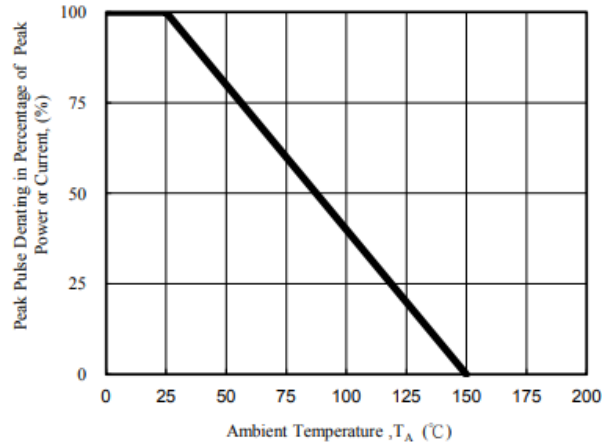


Figure 2- Maximum Non-Repetitive Surge Current

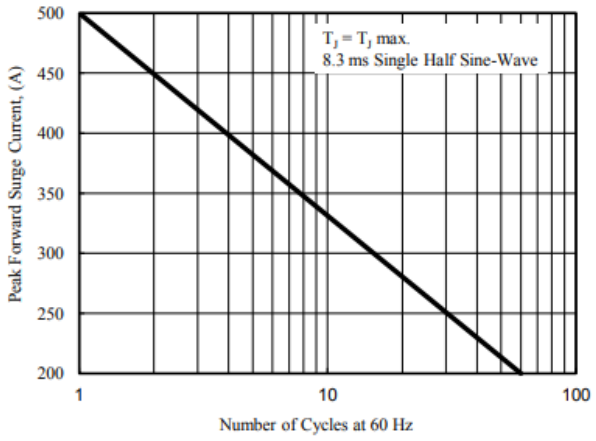


Figure 3- Steady State Power Derating Curve

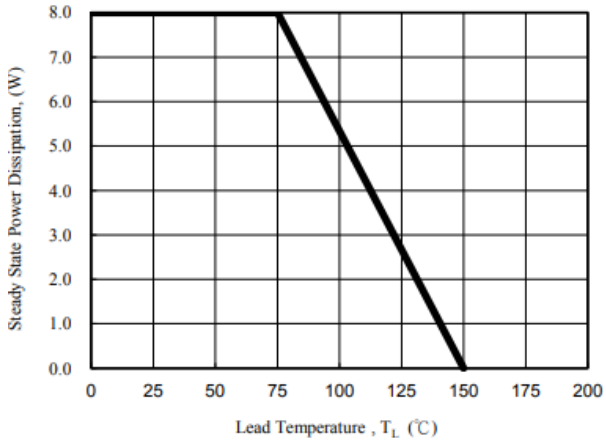


Figure 4-- Peak Pulse Power Rating Curve

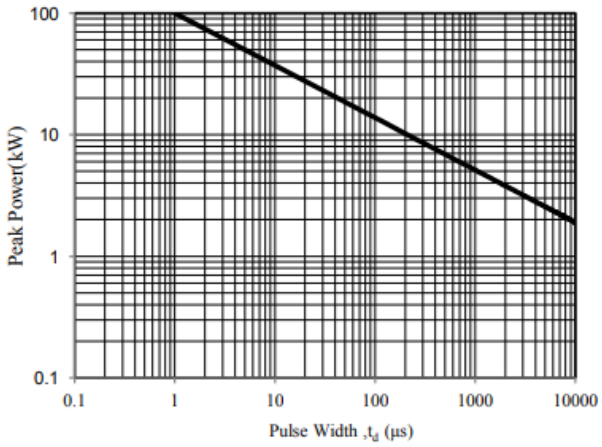


Figure 5- - Pulse Waveform

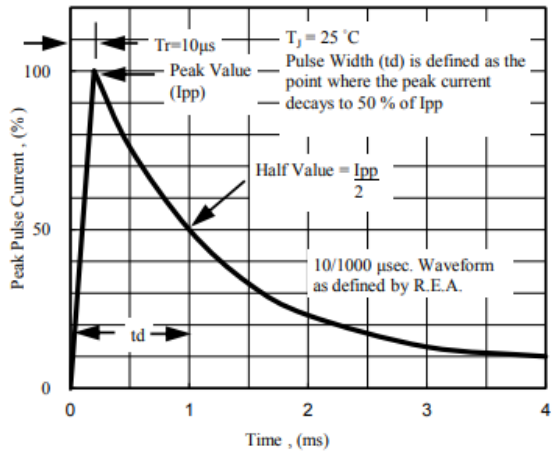
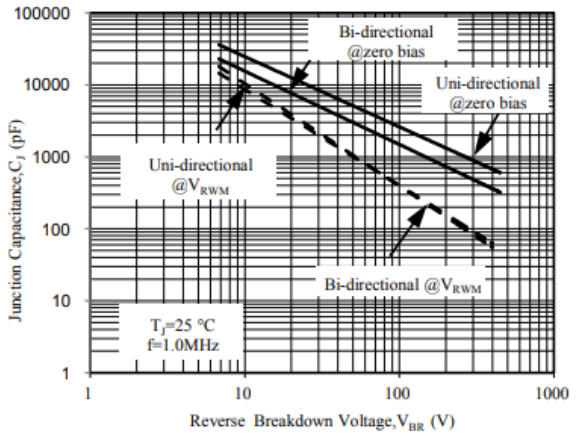
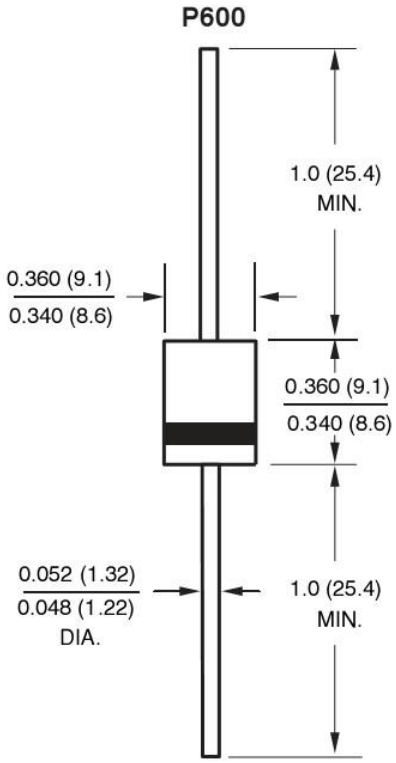


Figure 6- Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.