Silicon Bridge Rectifiers

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MP1000 Thru 1010

Reverse Voltage: 50 - 1000 Volts
Forward Current: 10 Amp

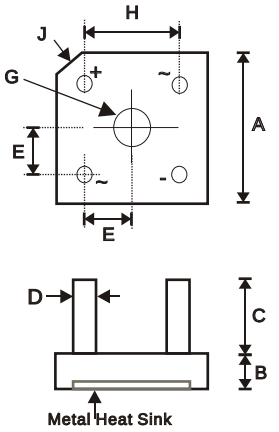
Features

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters Laboratory Flammability Classification 94V-O

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL STD-202, Method 208
- Weight: 5.4 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum

MP-10



MP-10		
Dim	**Min**	**Max**
A	14.73	15.75
B	5.80	6.90
C	19.00	-
D	1.00 Ø Typical	
E	5.11	6.14
G	Hole for # 6 screw	
	3.60	4.00
H	10.30	11.30
J	2.38 x 45°C Typical	
All Dimensions in mm		

Maximum Ratings and Electrical Characterics

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

CHARACTERISTICS	Symbol	MP 1000	MP 1001	MP 1002	MP 1004	MP 1006	MP 1008	MP 1010	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note1) @ T_A = 50°C	I_O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Forward Voltage (per element) @I_F = 5.0A	V_{FM}	1.1							V
Peak Reverse Current @T_C = 25°C At Rated DC Blocking Voltage @T_C = 100°C	I_R	10 1.0							uA mA
I^2t Rating for Fusing (t < 8.3ms) (Note2)	I^2t	64							A^2s
Typical Junction Capacitance (Note3)	C_j	110							pF
Typical Thermal Resistance (Note4)	$R_{\theta JC}$	7.5							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.
2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03mm thick land areas.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
4. Thermal resistance junction to case per element.

Rating and Characteristic Curves (MP1000 thru 1010)