

MP1000 – MP1010

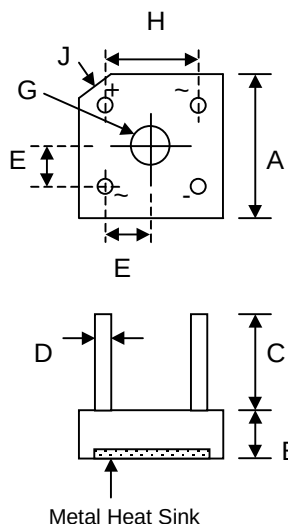
10A BRIDGE RECTIFIER

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
- Polarity: Marked on Body
- Weight: 5.4 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Marking: Type Number



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 Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	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 (Note 1) @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							µA mA
I ² t Rating for Fusing (t<8.3ms) (Note 2)	I ² _t	64							A ² s
Typical Junction Capacitance (Note 3)	C _j	110							pF
Typical Thermal Resistance (Note 4)	R _{θJC}	7.5							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +125							°C

Note: 1. Mounted on heatsink.

2. Non-repetitive, for t > 1ms and < 8.3ms.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

4. Thermal resistance junction to case per element.

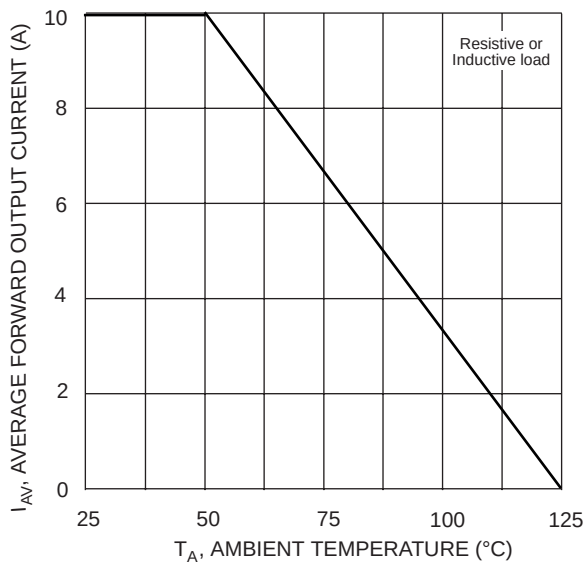


Fig. 1 Forward Current Derating Curve

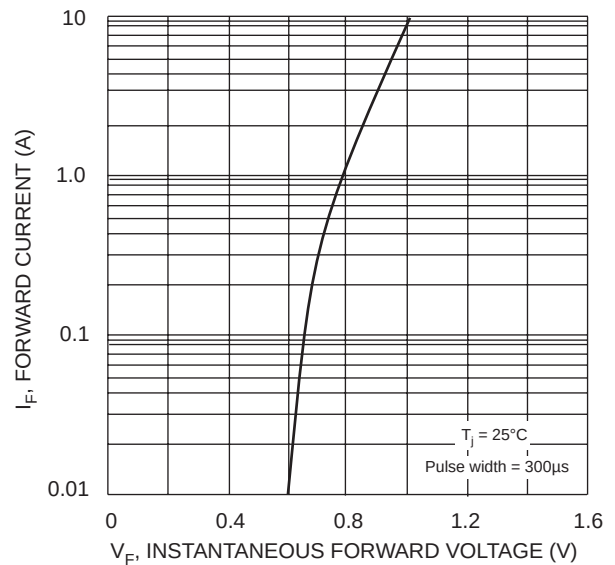


Fig. 2 Typical Forward Characteristics, per element

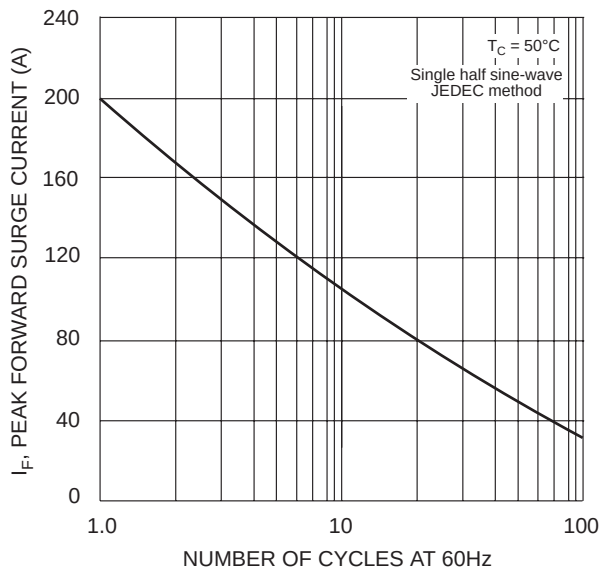


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

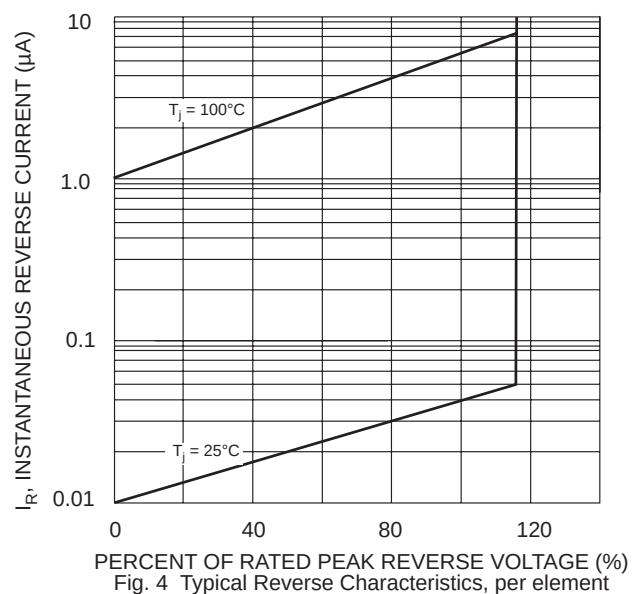


Fig. 4 Typical Reverse Characteristics, per element

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MP1000	Square Bridge	200 Units/Box
MP1001	Square Bridge	200 Units/Box
MP1002	Square Bridge	200 Units/Box
MP1004	Square Bridge	200 Units/Box
MP1006	Square Bridge	200 Units/Box
MP1008	Square Bridge	200 Units/Box
MP1010	Square Bridge	200 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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