



MP25005/W - MP2510/W

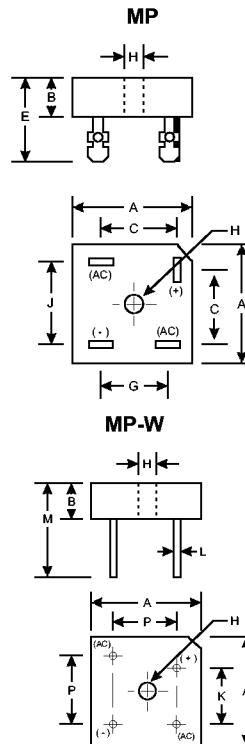
25A BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Surge Overload Rating to 300A Peak
- Case to Terminal Isolation Voltage 1500V
- UL Listed: Recognized Component Index, File Number E95060

Mechanical Data

- Case: Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #10 Screw
- Mounting Torque: 8.0 Inch-pounds Maximum
- MP Weight: 23 grams (approx.)
- MP-W Weight: 17 grams (approx.)
- Mounting Position: Any



MP / MP-W		
Dim	Min	Max
A	28.40	28.70
B	9.70	10.00
C	15.70	16.70
E	22.86	25.40
G	13.50	14.50
H	Hole for #10 screw 5.08Ø Nominal	
J	17.50	18.50
K	10.90	11.90
L	0.97Ø	1.07Ø
M	30.50	—
P	17.60	18.60
All Dimensions in mm		

W Suffix Designates Wire Leads
No Suffix Designates Faston Terminals

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	MP25 005/W	MP25 01/W	MP25 02/W	MP25 04/W	MP25 06/W	MP25 08/W	MP25 10/W	Unit
Peak Repetitive Reverse Voltage	V _{RRM}								V
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V _R								V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T _C = 55°C	I _O	25							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300							A
Forward Voltage (per element) @ I _F = 12.5A	V _F	1.1							V
Peak Reverse Current @ T _C = 25°C at Rated DC Blocking Voltage @ T _C = 125°C	I _{RM}	10 0.5							µA mA
I ² t Rating for Fusing (Note 1)	I ² t	373							A ² s
Typical Junction Capacitance (Note 2)	C _j	300							pF
Typical Thermal Resistance Junction to Case (Note 3)	R _{θJC}	3.8							K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +125							°C

- Notes:
1. Non-repetitive, for t > 1.0ms and t < 8.3ms.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance junction to case per element mounted on heatsink.

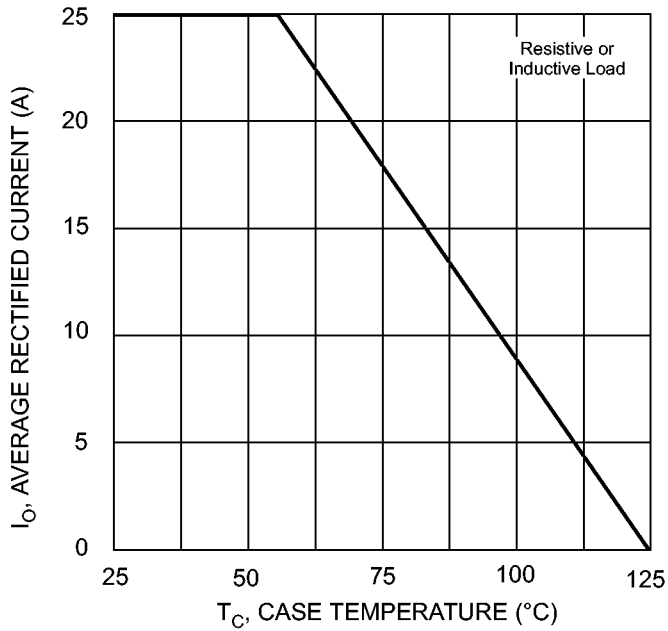


Fig. 1 Forward Current Derating Curve

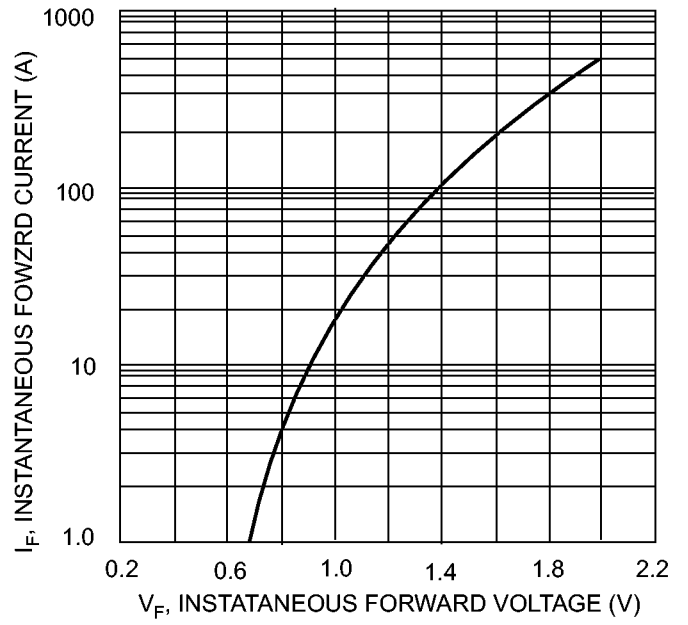


Fig. 2 Typical Forward Characteristics

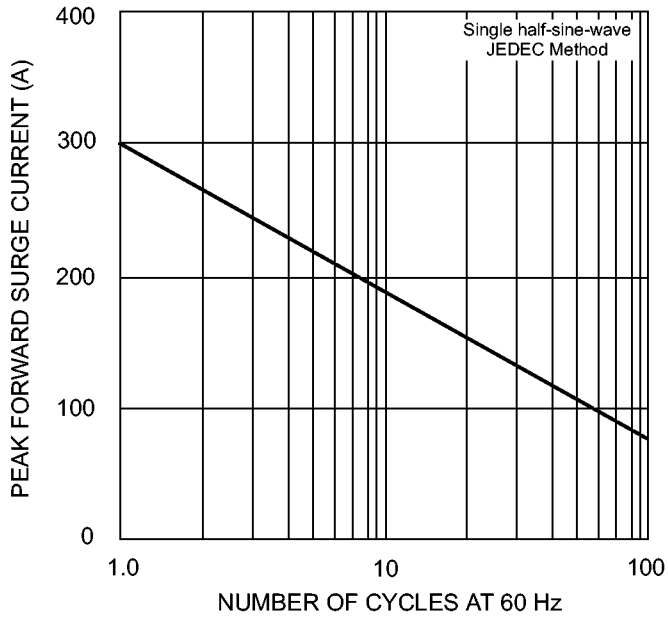


Fig. 3 Maximum Non-Repetitive Surge Current

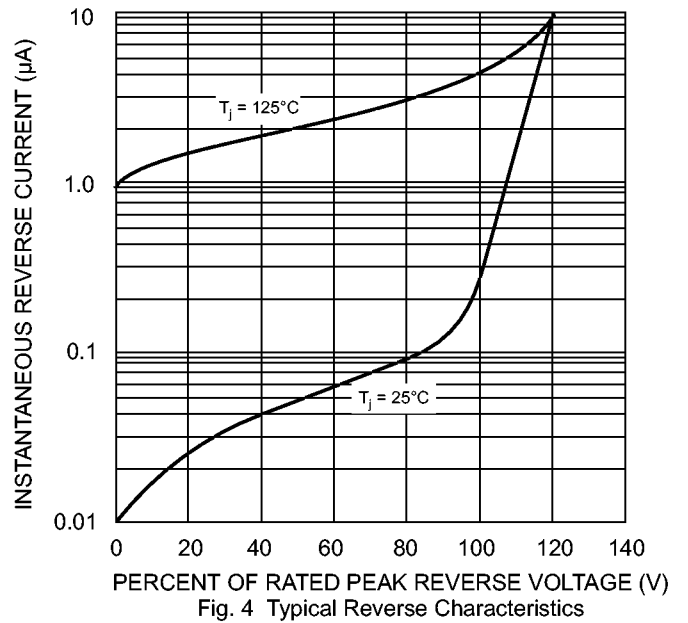


Fig. 4 Typical Reverse Characteristics