



# MP15005/W - MP1510/W

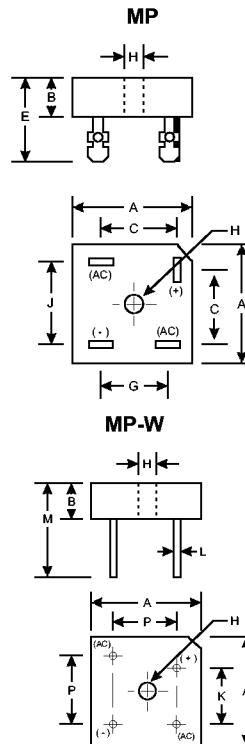
## 15A BRIDGE RECTIFIER

### 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<sub>A</sub> = 25°C unless otherwise specified

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

Characteristic	Symbol	MP15 005/W	MP15 01/W	MP15 02/W	MP15 04/W	MP15 06/W	MP15 08/W	MP15 10/W	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								V
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T <sub>C</sub> = 55°C	I <sub>O</sub>	15							A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300							A
Forward Voltage (per element) @ I <sub>F</sub> = 7.5A	V <sub>F</sub>	1.1							V
Peak Reverse Current @ T <sub>C</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>C</sub> = 125°C	I <sub>RM</sub>	10 0.5							µA mA
I <sup>2</sup> t Rating for Fusing (Note 1)	I <sup>2</sup> t	373							A <sup>2</sup> s
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	200							pF
Typical Thermal Resistance Junction to Case (Note 3)	R <sub>θJC</sub>	6.3							K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-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.

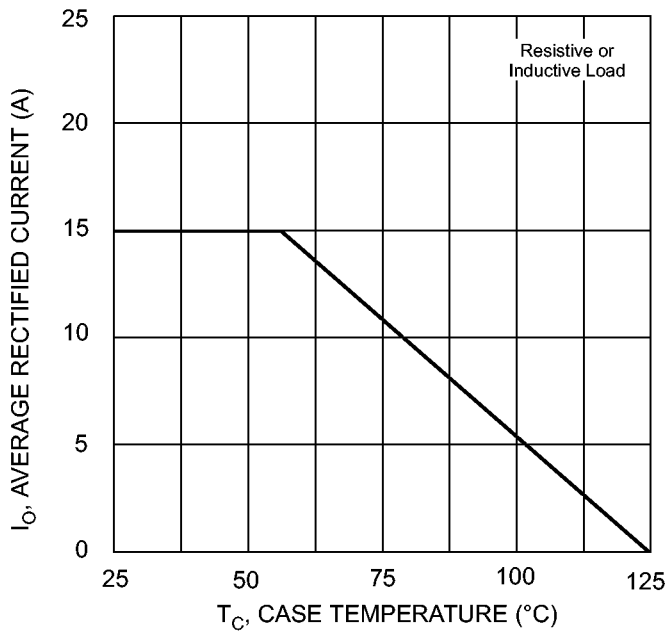


Fig. 1 Forward Current Derating Curve

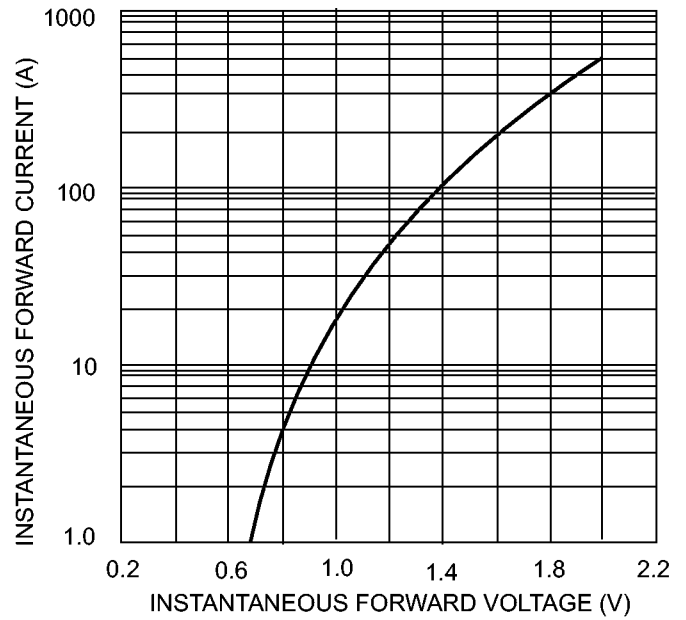


Fig. 2 Typical Forward Characteristics

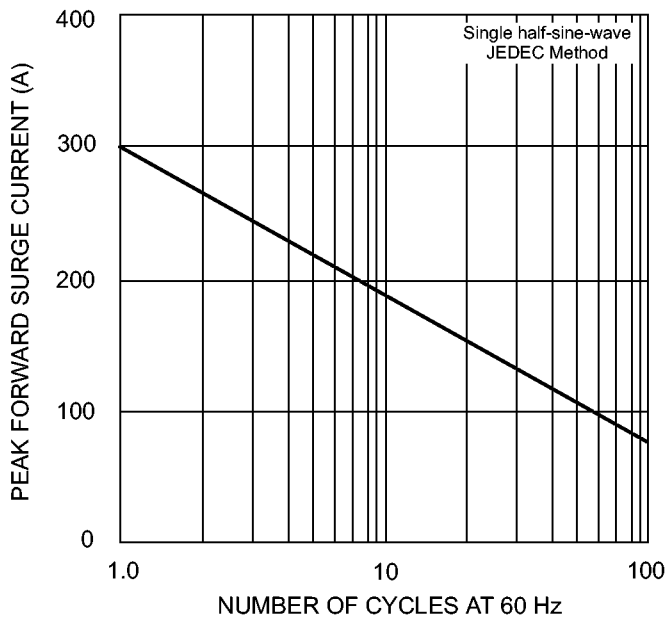


Fig. 3 Maximum Non-Repetitive Surge Current

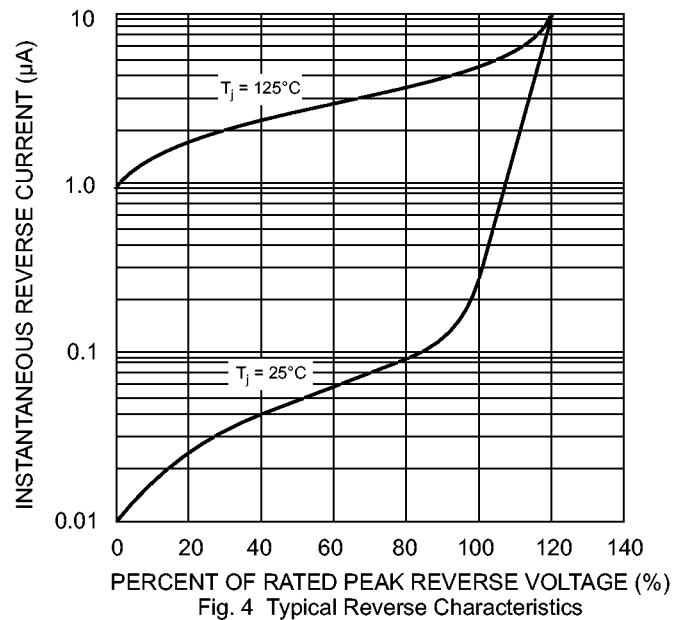


Fig. 4 Typical Reverse Characteristics