MP15005/W - MP1510/W

15A BRIDGE RECTIFIER

Features

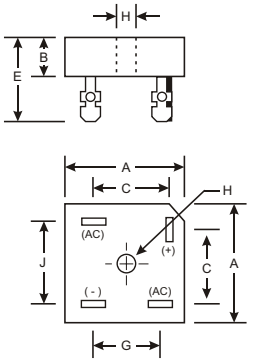
NOT RECOMMENDED FOR NEW DESIGNS - USE GBPC15XXXX SERIES

- 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

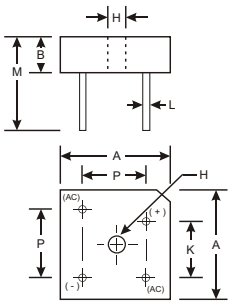
Mechanical Data

- 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
- Marking: Type Number

MP



MP-W



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	
	5.08∅ Nominal	
J	17.50	18.50
K	10.90	11.90
L	0.97∅	1.07∅
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	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 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 @ T_C = 55°C	I_O	15							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 = 7.5A	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^2t Rating for Fusing (Note 1)	I^2t	373							A^2s
Typical Junction Capacitance (Note 2)	C_j	200							pF
Typical Thermal Resistance Junction to Case (Note 3)	$R_{\theta JC}$	6.3							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.

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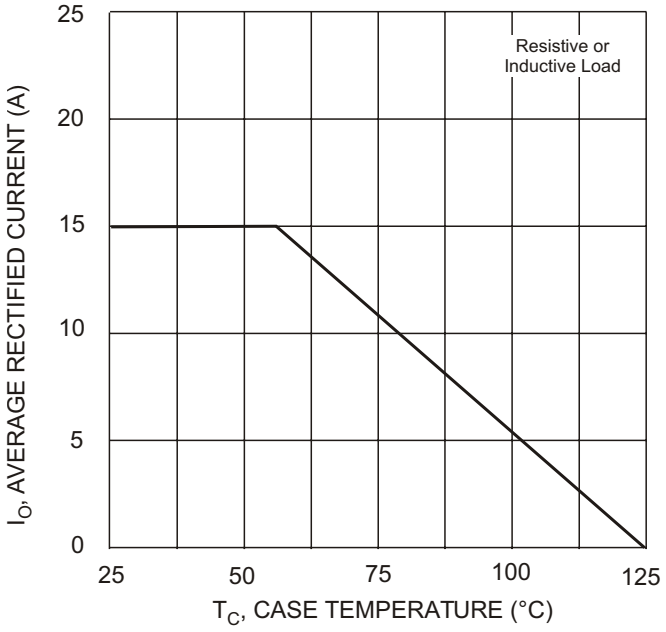

Fig. 1 Forward Current Derating Curve

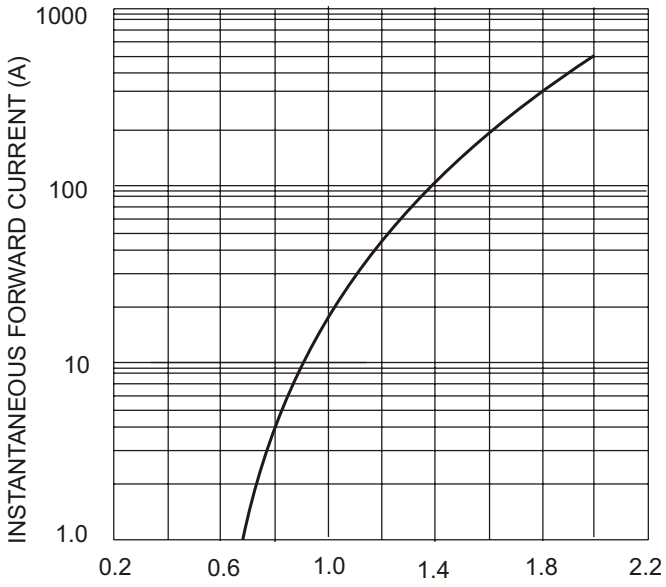

Fig. 2 Typical Forward Characteristics

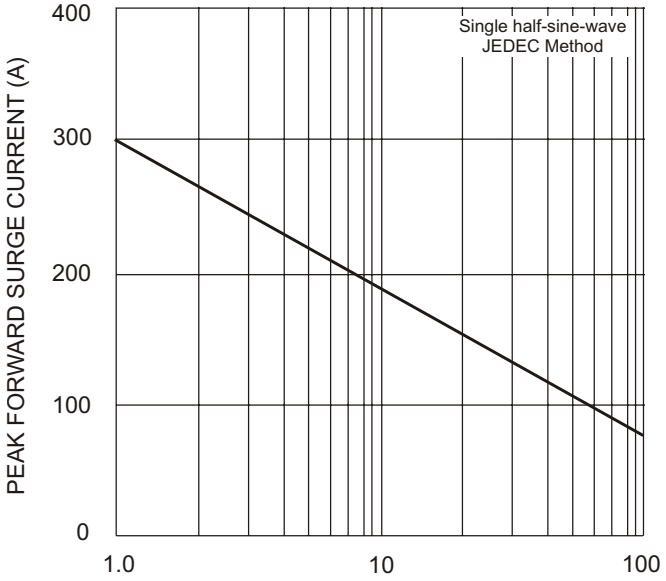

Fig. 3 Maximum Non-Repetitive Surge Current

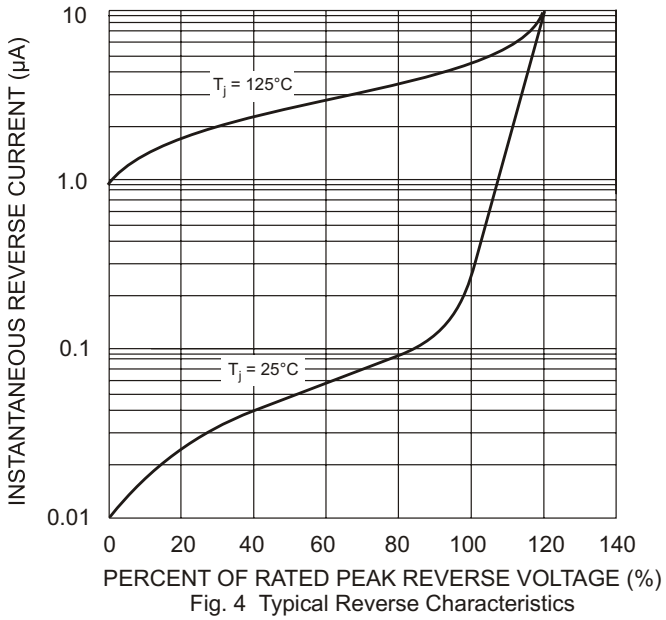

Fig. 4 Typical Reverse Characteristics