MBR50005W THRU MBR5010W

Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 50 Amperes

Features

- Low forward voltage drop
- Electrically isolated base -2000 Volts
- High surge forward current capability
- Materials used carries U/L recognition

Mechanical Data

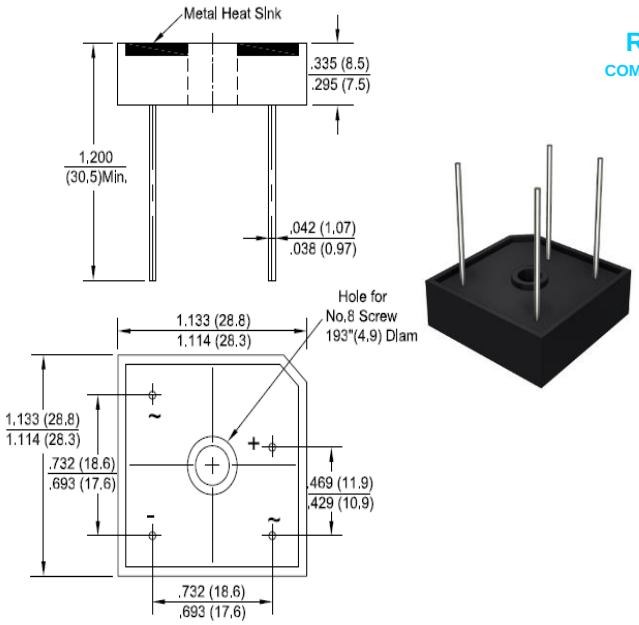
- Polarity: Symbol Marked on body
- Mounting position: Any

Note: Products with logo HY® or HY are made by HY Electronic (Cayman) Limited.

Applications

- General purpose use in AC/DC bridge full wave rectification, for power supply, industrial automation applications, etc.

MBRW



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	MBR 50005W	MBR 5001W	MBR 5002W	MBR 5004W	MBR 5006W	MBR 5008W	MBR 5010W	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current @T_C=55 ℃	$I_{(AV)}$	50							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	500							A
I^2t Rating for Fusing (t<8.3mS)	I^2t	1037.5							A^2s
Peak Forward Voltage per Diode at 25A DC	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode @T_J=25℃	I_R	10							μA
Operating Junction Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

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Fig. 1 - Forward Current Derating Curve

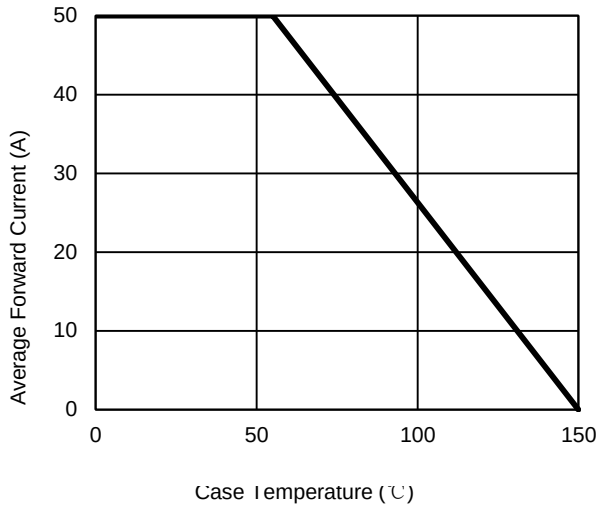


Fig. 2 - Maximum Non-Repetitive Surge Current

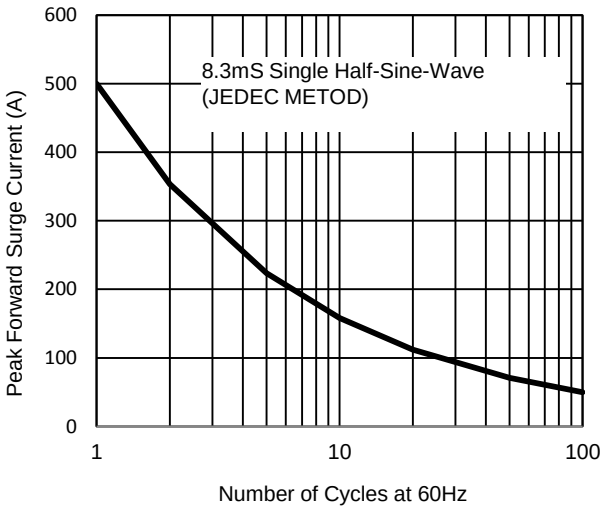


Fig. 3 - Typical Reverse Characteristics

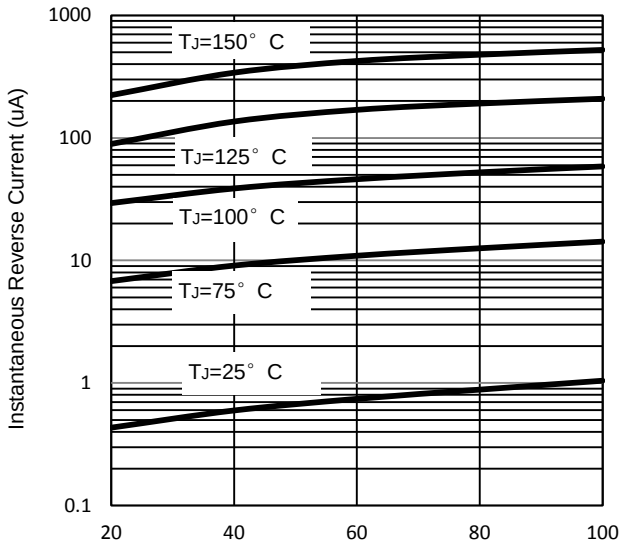
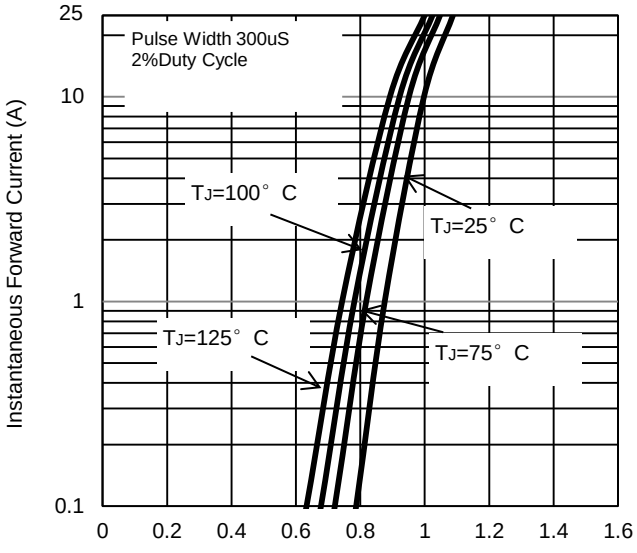


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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