

***MDXM SERIES***

***MINIATURE SINGLE-PHASE BRIDGE RECTIFIER***

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# MD1M THRU MD7M



康比電子  
HORNBY ELECTRONIC

## MINIATURE GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**REVERSE VOLTAGE:** 50 to 1000 VOLTS

**FORWARD CURRENT:** 0.5 AMPERE

### FEATURES

- Glass passivated chip junction
- Low forward voltage drop
- High surge overload rating of 30 Amperes peak
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C for 10 seconds

### MECHANICAL DATA

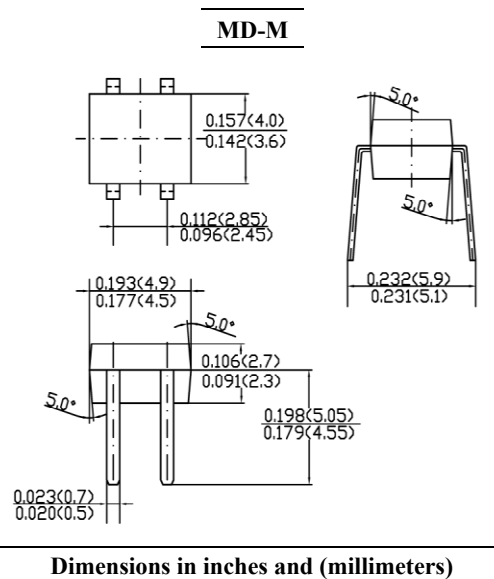
Case: Molded plastic, MD-M

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,  
method 208 guaranteed

Mounting position: Any

Weight: 0.008ounce, 0.22gram



### Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	MD1M	MD2M	MD3M	MD4M	MD5M	MD6M	MD7M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current (see Fig. 1) on glass-epoxy P.C.B (Note 2) on aluminum substrate (Note 3)	$I_{AV}$				0.5 0.8				Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$				30				Amp
Maximum Forward Voltage at 0.4A DC and 25 °C	$V_F$				1.0				Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=125$	$I_R$				5.0 500				uAmp
Typical Junction Capacitance (Note 1)	$C_J$				13				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$				70				/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$				20				/W
Operating and Storage Temperature Range	$T_J, T_{stg}$				-55 to +150				

### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads

3- On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

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## RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve for Output Rectified Current

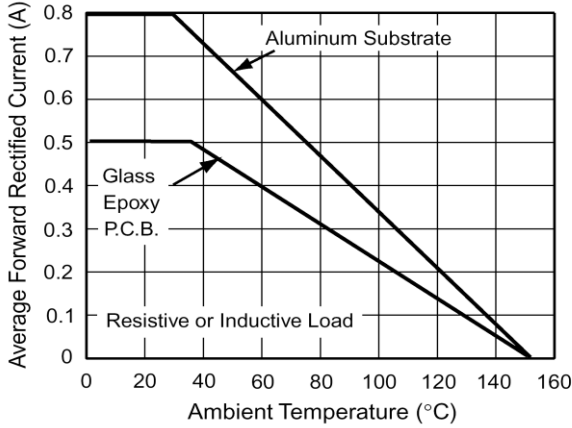


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

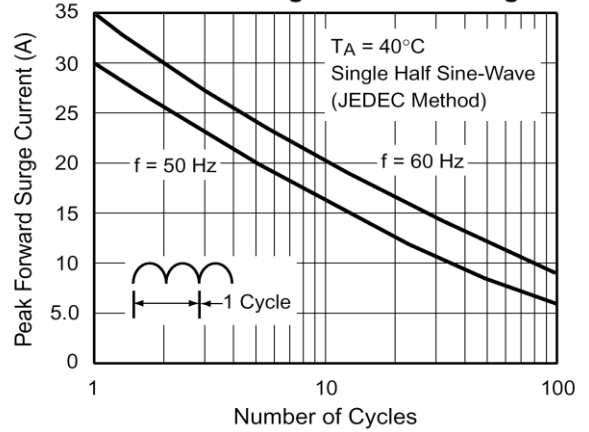


Fig. 3 - Typical Forward Voltage Characteristics Per Leg

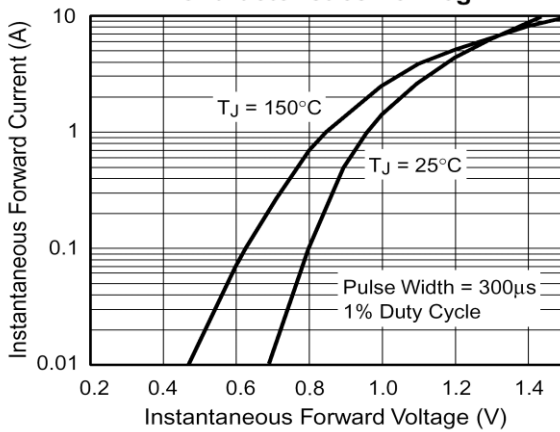


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

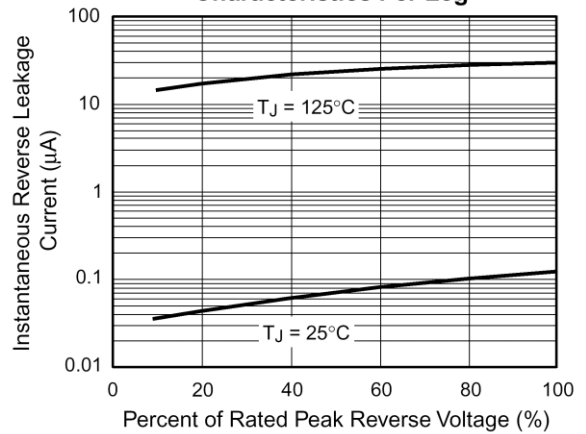


Fig. 5 - Typical Junction Capacitance Per Leg

