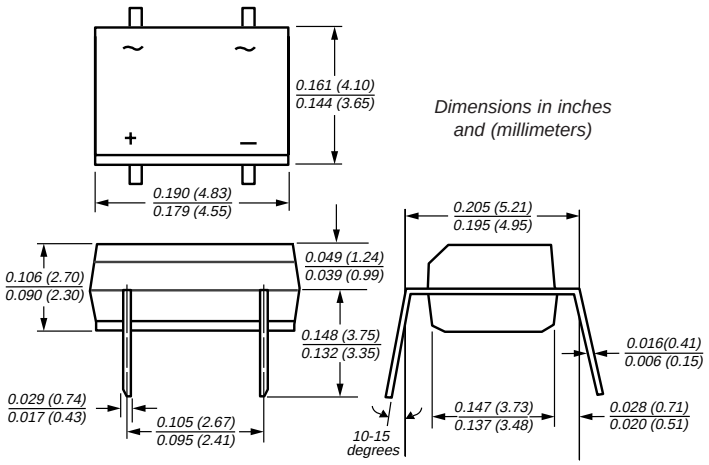
Miniature Glass Passivated Single-Phase Bridge Rectifiers

Reverse Voltage 200 to 600V
Forward Current 0.5A

Case Style MBM



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- High surge overload rating: 35A peak
- Saves space on printed circuit boards
- Recommended for non-automotive applications

Mechanical Data

Case: Molded plastic body over passivated junctions

Terminals: Plated leads solderable per MIL-STD-750, Method 2026
High temperature soldering guaranteed: 260°C/10 seconds.

Mounting Position: Any **Weight:** 0.0078 oz., 0.22 g

Packaging codes-options:
45-100 per tube, 5K per carton

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	MB2M	MB4M	MB6M	Unit
Device marking code		2	4	6	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forward output rectified current (see Fig. 1) on glass-epoxy P.C.B. on aluminum substrate	$I_{F(AV)}$	0.5(1) 0.8(2)			A
Peak forward surge current 8.3msec single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35			A
Rating for fusing (t < 8.3ms)	I^2t	5.0			A^2sec
Typical thermal resistance per leg	$R_{\Theta JA}$ $R_{\Theta JA}$ $R_{\Theta JL}$	85(1) 70(2) 20(1)			°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150			°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Max. instantaneous forward voltage drop per leg at 0.4A	V_F	1.0	V
Maximum DC reverse current at rated DC blocking voltage per leg T_A = 25°C T_A = 125°C	I_R	5.0 100	µA
Typical junction capacitance per leg(3)	C_J	13	pF

Notes: (1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
(2) 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
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 - Derating Curve for Output Rectified Current

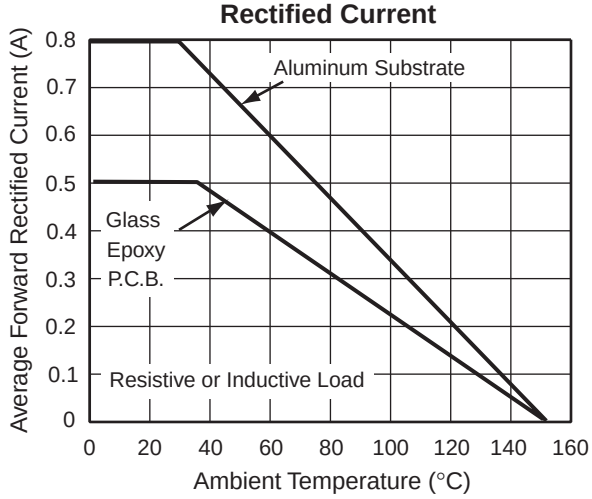


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

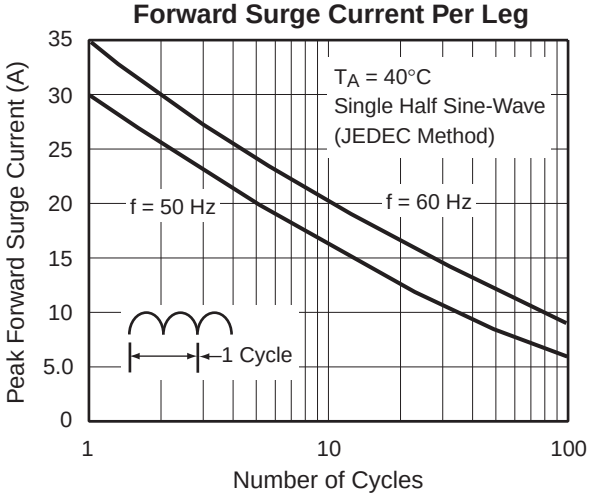


Fig. 3 - Typical Forward Voltage Characteristics Per Leg

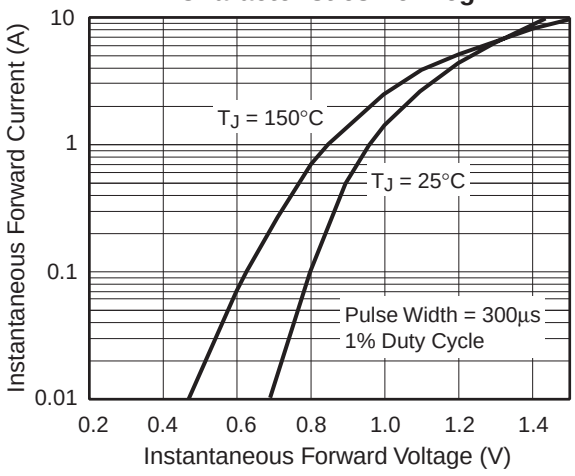


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

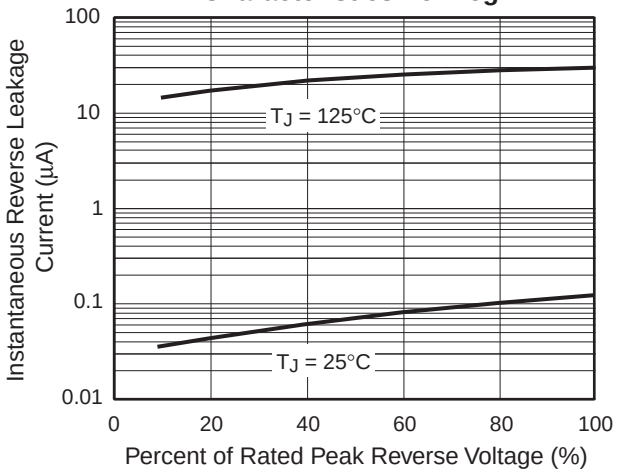


Fig. 5 - Typical Junction Capactitance Per Leg