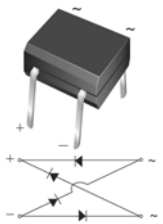
Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers
Reverse Voltage 200 to 1000 Volts Forward Current 0.5 Ampere

Features

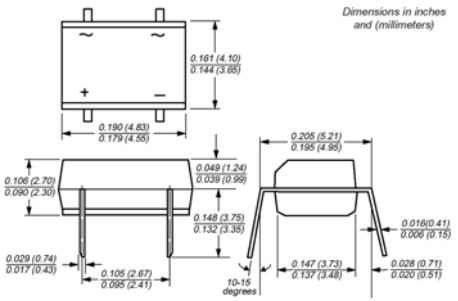
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- High surge overload rating: 35A peak
- Saves space on printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds.



MBM

Mechanical Data

- Case: Molded plastic body over passivated junctions
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Mounting Position: Any
- Weight: 0.078 oz., 0.22 g



Maximum Ratings and Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Symbols	MB2M	MB4M	MB6M	MB8M	MB10M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	Volts
Maximum average forward output rectified current (see Fig.1) on glass-epoxy P.C.B. on alum num substrate	$I_{F(AV)}$	0.5 (1) 0.8 (2)					Amp
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35.0					Amps
Rating for fusing (t < 8.3ms)	I^2t	5.0					A^2sec
Maximum instantaneous forward voltage drop per leg at 0.4A	V_F	1.0					Volt
Maximum DC reverse current at rated DC blocking voltage per leg T_A = 25°C T_A = 125°C	I_R	5.0 100					uA
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JA}$ $R_{\theta JL}$	85 (1) 70 (2) 20 (1)					°C/W
Typical junction capacitance per leg at 4.0V, 1.0MHz	C_J	13					pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150					°C

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

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

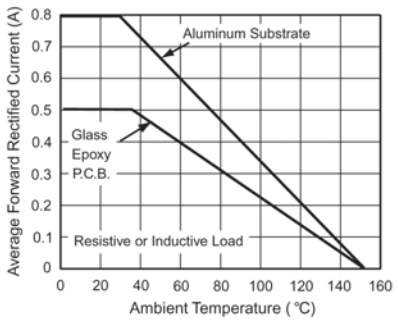


Figure 1. Derating Curve for Output Rectified Current

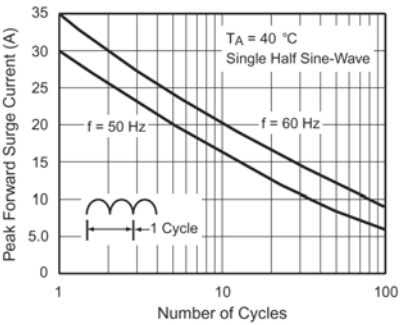


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

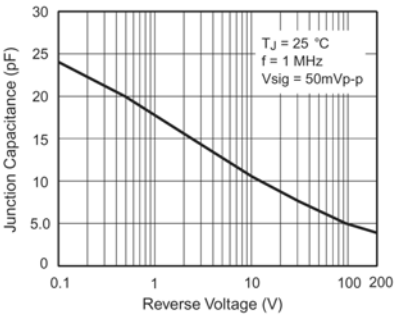


Figure 5. Typical Junction Capacitance Per Leg

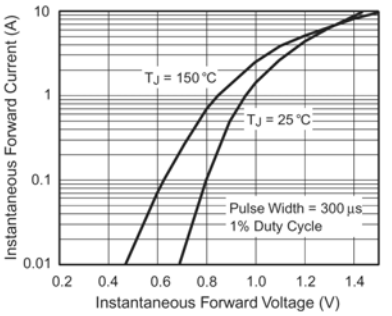


Figure 3. Typical Forward Voltage Characteristics Per Leg

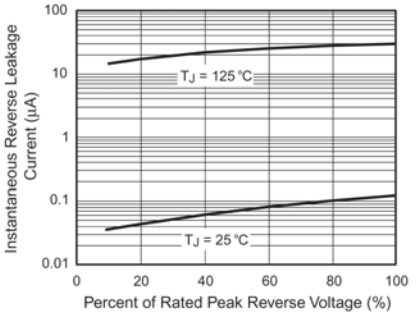


Figure 4. Typical Reverse Leakage Characteristics Per Leg