

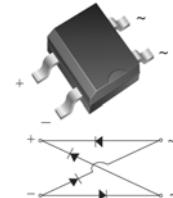


MB2S thru MB10S

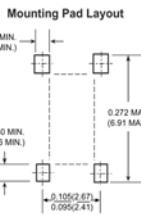
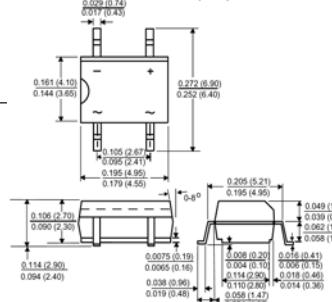
Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers
Reverse Voltage 200 to 1000 Volts Forward Current 0.5 Ampere

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.



TO-269AA (MBS)



Package outline dimensions in inches (millimeters)

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	MB2S	MB4S	MB6S	MB8S	MB10S	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 aluminum 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)	P _t			5.0			A ² sec
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	I _R			5.0 100			uA
Typical thermal resistance per leg	R _{JA} R _{BJA} R _{UL}			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

($T_A = 25^\circ\text{C}$ unless otherwise noted)

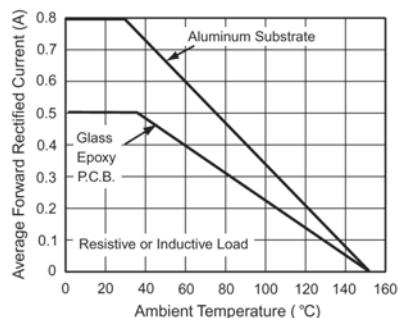


Figure 1. Derating Curve for Output Rectified Current

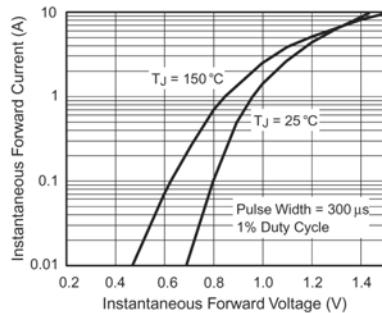


Figure 3. Typical Forward Voltage Characteristics Per Leg

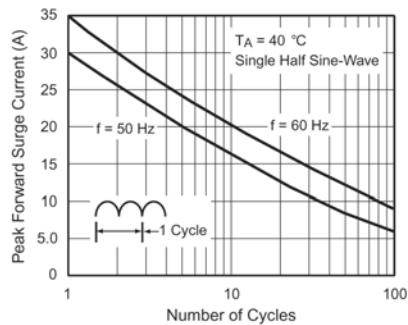


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

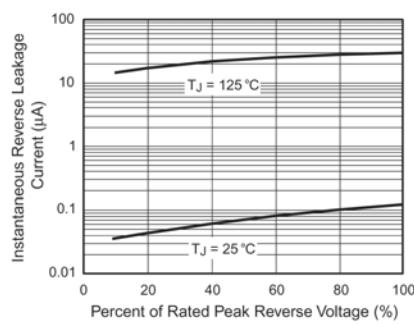


Figure 4. Typical Reverse Leakage Characteristics Per Leg

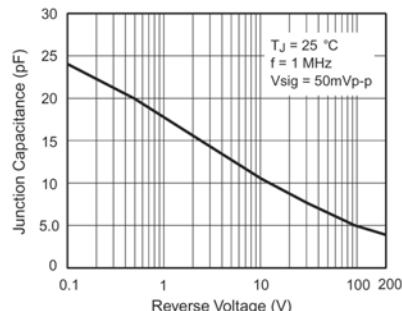


Figure 5. Typical Junction Capacitance Per Leg