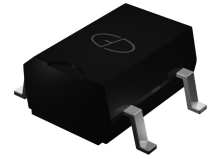


# MB2SHF thru MB12SHF

Glass Passivated Bridge Rectifiers  
Reverse Voltage 200 to 1200V Forward Current 0.5A

## Features

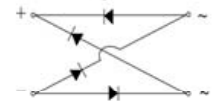
- Glass passivated bridge rectifiers
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds



**Package:**  
TO-269AA (MBS)

## Mechanical Data

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



**Schematic Diagram**

## Maximum Ratings and Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	MB2SHF	MB4SHF	MB6SHF	MB8SHF	MB10SHF	MB12SHF	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	400	600	800	1000	1200	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	200	400	600	800	1000	1200	V
Maximum Average Forward Output Current (see Fig.1) on glass-epoxy P.C.B on aluminum substrate	I <sub>F(AV)</sub>	0.5 <sup>(1)</sup> 0.8 <sup>(2)</sup>						A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load, JEDEC method)	I <sub>FSM</sub>	35						A
Rating for Fusig (t<8.3ms)	I <sup>2</sup> t	5.0						A <sup>2</sup> sec
Maximum Instantaneous Forward Voltage Drop per Leg at 0.4A	V <sub>F</sub>	1.0						V
Maximum DC Reverse Current at Rated T <sub>A</sub> =25°C	I <sub>R</sub>	5						μA
DC Blocking Voltage per Leg T <sub>A</sub> =125°C		100						
Typical Thermal Resistance per Leg	R <sub>θJA</sub>	85 <sup>(1)</sup>						°C/W
	R <sub>θJA</sub>	70 <sup>(2)</sup>						
	R <sub>θJL</sub>	20 <sup>(1)</sup>						
Typical Junction Capacitance at 4.0V,1.0MHz	C <sub>J</sub>	13						pF
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150						°C

**Notes:** 1. On glass epoxy P.C.B. mounted on 0.05×0.05"(1.3×1.3mm) pads

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

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## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

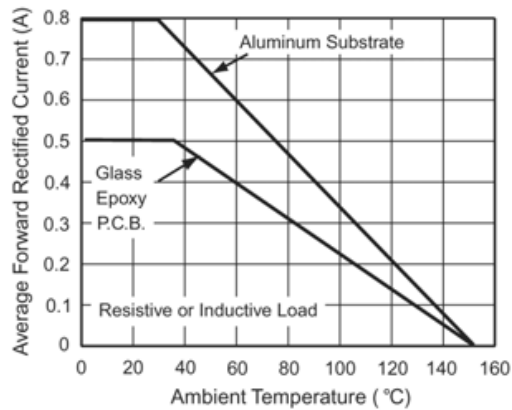


Figure 1. Derating Curve for Output Rectified Current

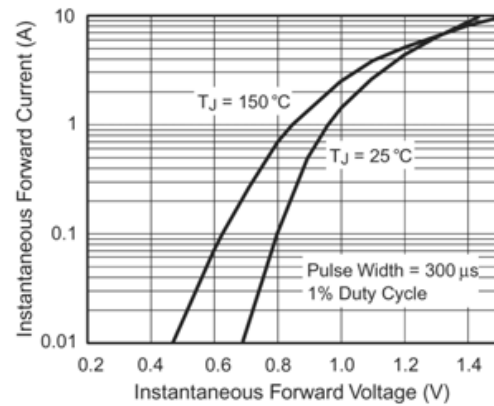


Figure 3. Typical Forward Voltage Characteristics Per Leg

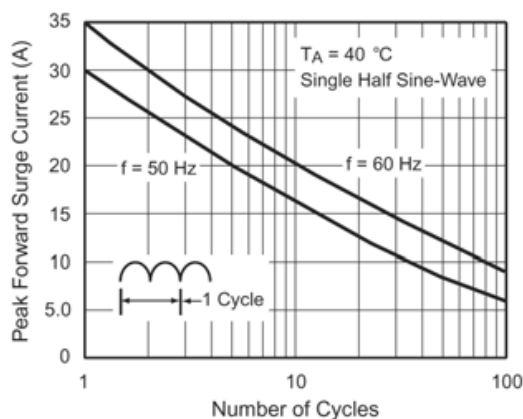


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

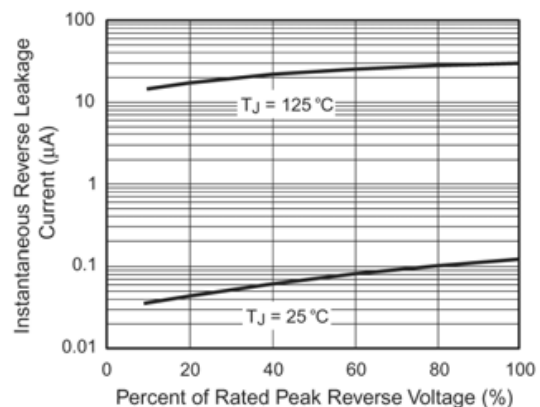


Figure 4. Typical Reverse Leakage Characteristics Per Leg

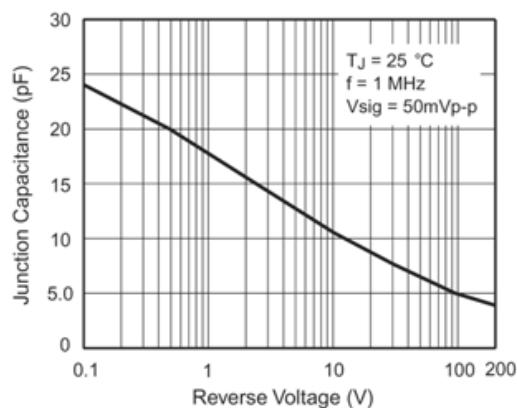


Figure 5. Typical Junction Capacitance Per Leg

# MB2SHF thru MB12SHF

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Reverse Voltage 200 to 1200V Forward Current 0.5A

## Package Outline Dimensions

in inches (millimeters)

TO-269AA (MBS)

