

# MB2SA thru MB10SA

Glass Passivated Bridge Rectifiers  
 Reverse Voltage 200 to 1000V Forward Current 0.5A

## Features

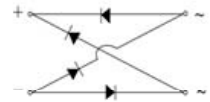
- Glass passivated bridge rectifiers
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds



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

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

Parameter	Symbol	MB2SA	MB4SA	MB6SA	MB8SA	MB10SA	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1000	V
Maximum Average Forward Output Current (see Fig.1) on glass-epoxy P.C.B on aluminum substrate	$I_{F(AV)}$	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)	$I_{FSM}$	25					A
Rating for Fusig (t<8.3ms)	$i^2t$	2.6					A <sup>2</sup> sec
Maximum Instantaneous Forward Voltage Drop per Leg at 0.4A	$V_F$	1.00					V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg	$I_R$	5 100					$\mu\text{A}$
Typical Thermal Resistance per Leg	$R_{\theta JA}$	85 <sup>(1)</sup>					$^\circ\text{C/W}$
	$R_{\theta JA}$	70 <sup>(2)</sup>					
	$R_{\theta JL}$	20 <sup>(1)</sup>					
Typical Junction Capacitance at 4.0V, 1.0MHz	$C_J$	13					pF
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150					$^\circ\text{C}$

**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)

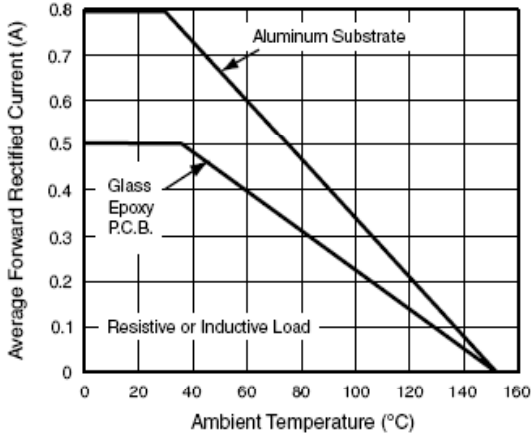


Figure 1. Derating Curve for Output Rectified Current

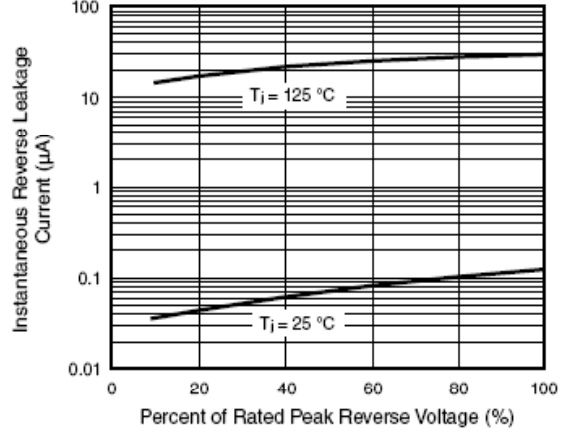


Figure 4. Typical Reverse Leakage Characteristics Per Leg

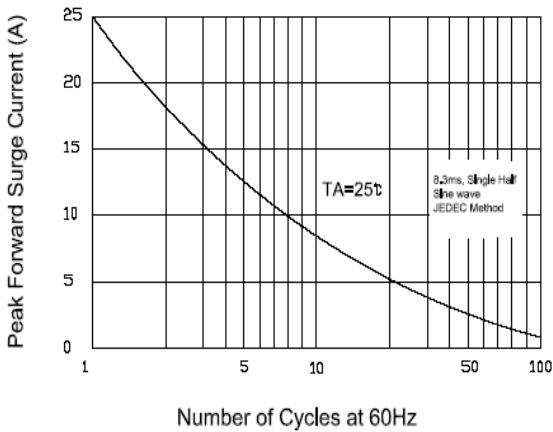


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

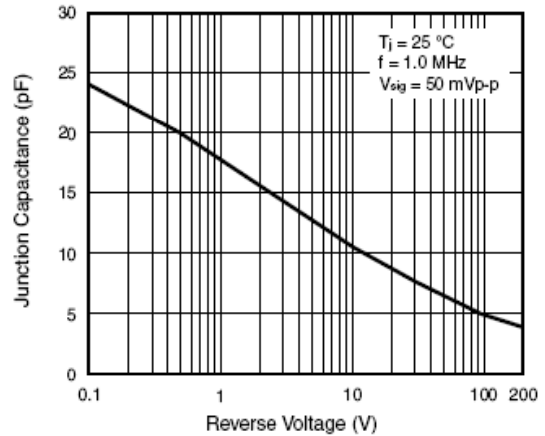


Figure 5. Typical Junction Capacitance Per Leg

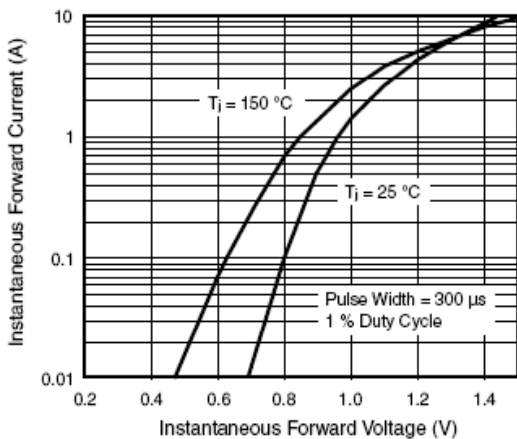


Figure 3. Typical Forward Voltage Characteristics Per Leg

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## Package Outline Dimensions

in inches (millimeters)

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