

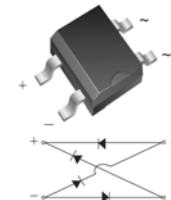


Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifiers

Reverse Voltage 200 to 1000 Volts Forward Current 0.8 Ampere

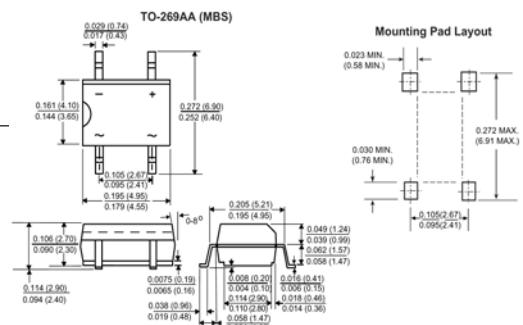
## Features

- ◆ 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.



## 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



Package outline dimensions in inches (millimeters)

## Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	MB2S	MB4S	MB6S	MB8S	MB10S	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	400	600	800	1000	Volts
Maximum RMS voltage	V <sub>RMS</sub>	140	280	420	560	700	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	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 <sub>F(AV)</sub>			0.5 <sup>(1)</sup> 0.8 <sup>(2)</sup>			Amp
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>			35.0			Amps
Rating for fusing (t < 8.3ms)	P <sub>t</sub>			5.0			A <sup>2</sup> sec
Maximum instantaneous forward voltage drop per leg at 0.4A	V <sub>F</sub>			1.0			Volt
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>			5.0 100			uA
Typical thermal resistance per leg	R <sub>JA</sub> R <sub>UEA</sub> R <sub>UL</sub>			85 <sup>(1)</sup> 70 <sup>(2)</sup> 20 <sup>(1)</sup>			°C/W
Typical junction capacitance per leg 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 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)

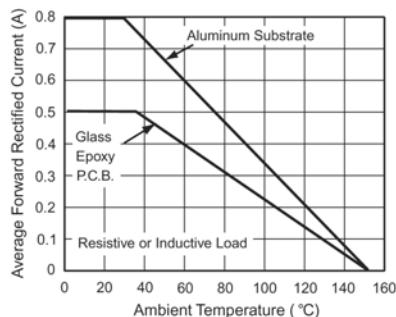


Figure 1. Derating Curve for Output Rectified Current

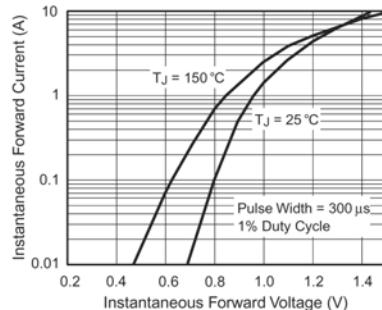


Figure 3. Typical Forward Voltage Characteristics Per Leg

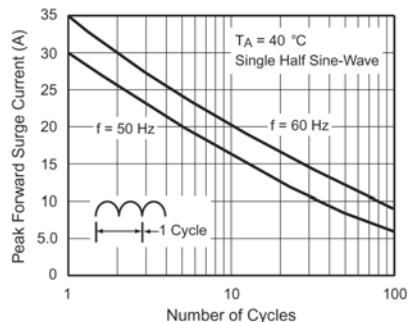


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

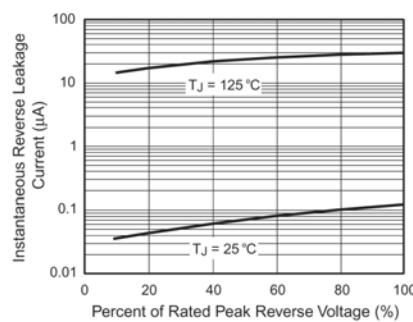


Figure 4. Typical Reverse Leakage Characteristics Per Leg

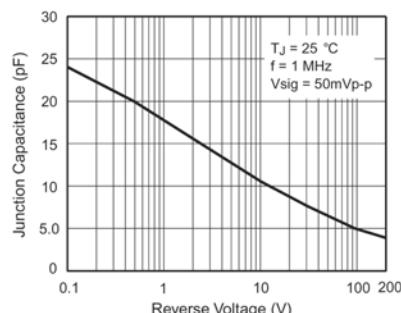


Figure 5. Typical Junction Capacitance Per Leg