

Miniature Glass Passivated Single-Phase Surface Mount Bridge Rectifier

Reverse Voltage 200 to 1000V
Forward Current 0.5A

TO-269AA (MBS)

Features

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

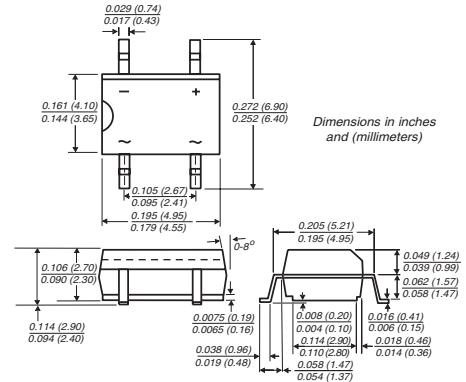
Mechanical Data

Case: Molded plastic body over passivated junctions

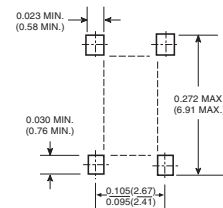
Terminals: Plated leads solderable
per MIL-STD-750, Method 2026

Mounting Position: Any

Weight: 0.0078 oz., 0.22 g



Mounting Pad Layout



Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	MB2S	MB4S	MB6S	MB8S	MB10S	Unit
Device marking code		2	4	6	8	10	
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 rectified current (see Fig. 1) on glass-epoxy P.C.B. on aluminum substrate	I _{F(AV)}	0.5 ⁽¹⁾ 0.8 ⁽²⁾					A
Peak forward surge current 8.3msec single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	35					A
Rating for fusing (t < 8.3ms)	I ² t R _{θJA}	5.0 85 ⁽¹⁾					A ² sec
Typical thermal resistance per leg	R _{θJA} R _{θJL}	70 ⁽²⁾ 20 ⁽¹⁾					°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150					°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Max. instantaneous forward voltage drop per leg at 0.4A	V _F	1.0	V
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°C	I _R	5.0 100	μA
Typical junction capacitance per leg at 4.0V, 1 MHz	C _J	13	pF

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)

Fig. 1 - Derating Curve for Output Rectified Current

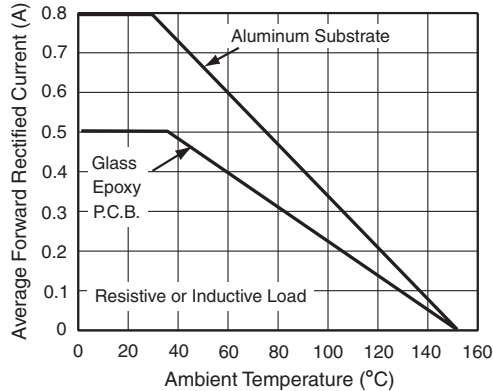


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

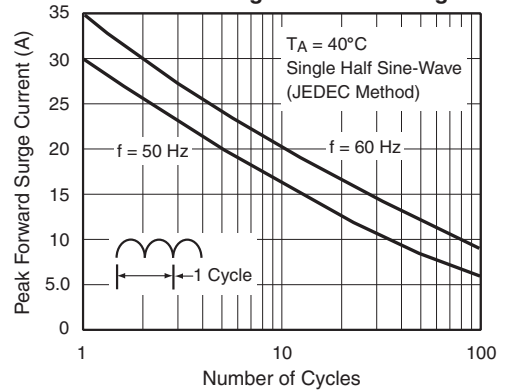


Fig. 3 - Typical Forward Voltage Characteristics Per Leg

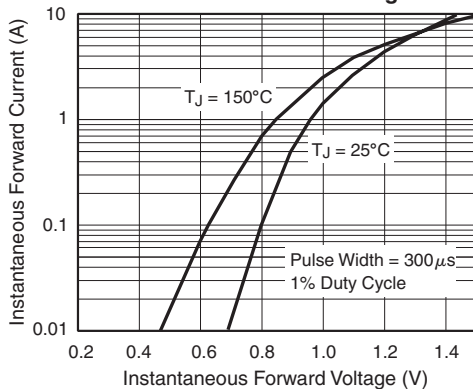


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

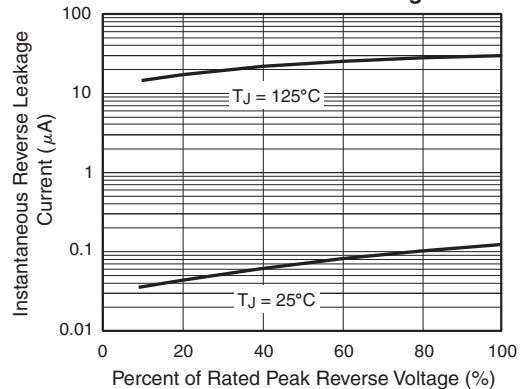


Fig. 5 - Typical Junction Capacitance Per Leg

