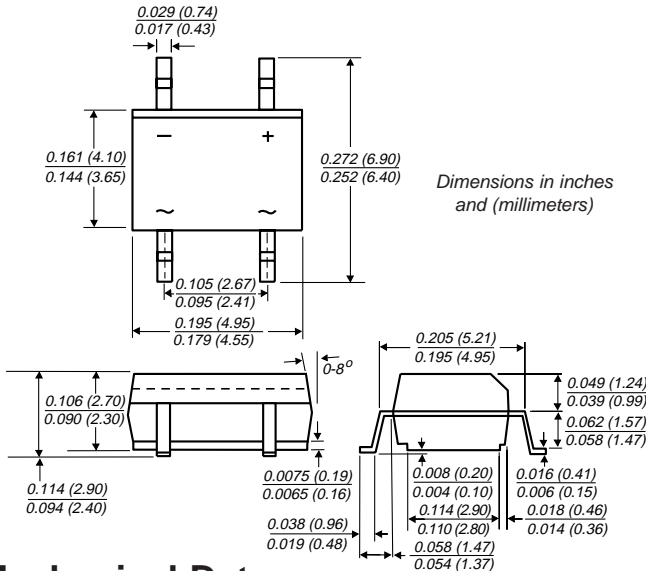




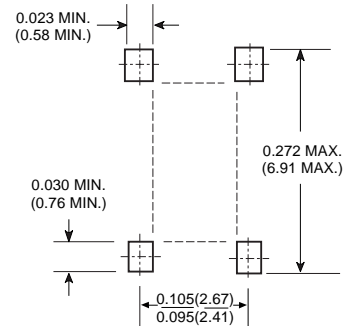
**Miniature Glass Passivated Single-Phase  
Surface Mount Bridge Rectifier**

**TO-269AA (MBS)**

Reverse Voltage 200 to 600V  
Forward Current 0.5A



**Mounting Pad Layout**



**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
- Packaging codes-options:** 80-3K per 13" Paper Reel, 36K/carton

**Features**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL recognized under Component Index, file number E54214
- Glass passivated chip junctions
- High surge overload rating: 35A peak
- Saves space on printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds.

**Maximum Ratings and Thermal Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Parameter	Symbol	MB2S	MB4S	MB6S	Unit
Device marking code		2	4	6	
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	V
Maximum average forward output rectified 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 8.3msec single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$		35		A
Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2t$ $R_{\theta JA}$		5.0 85 <sup>(1)</sup>		A <sup>2</sup> sec
Typical thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JL}$		70 <sup>(2)</sup> 20 <sup>(1)</sup>		°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$		-55 to +150		°C

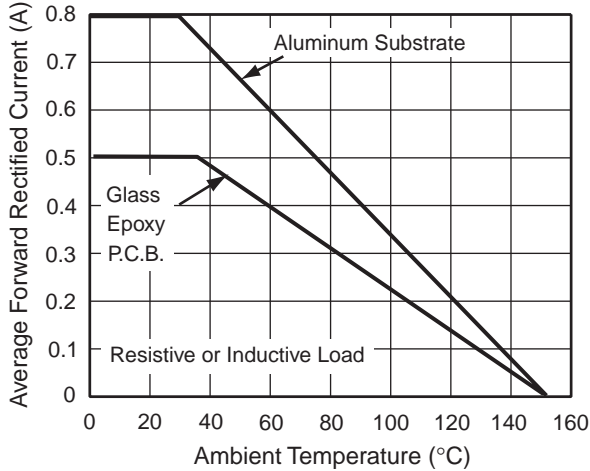
**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

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 $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	$I_R$		5.0 100		$\mu\text{A}$
Typical junction capacitance per leg at 4.0V, 1 MHz	$C_J$		13		pF

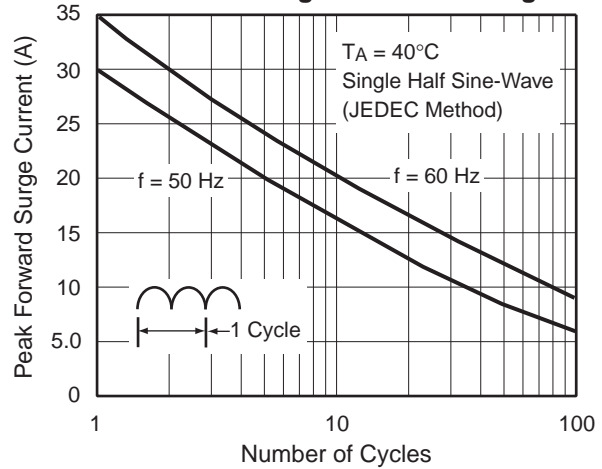
**Notes:** (1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads  
(2) On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

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

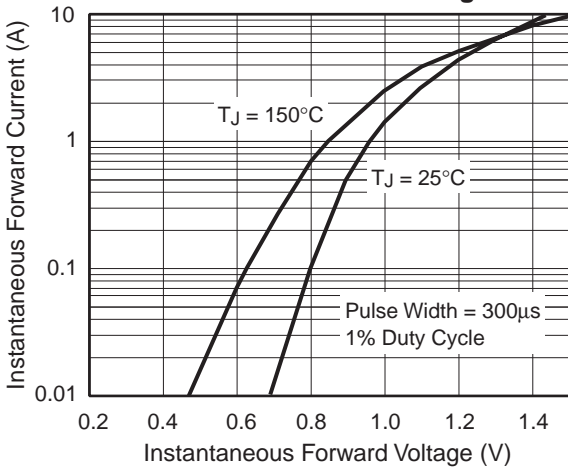
**Fig. 1 - Derating Curve for Output Rectified Current**



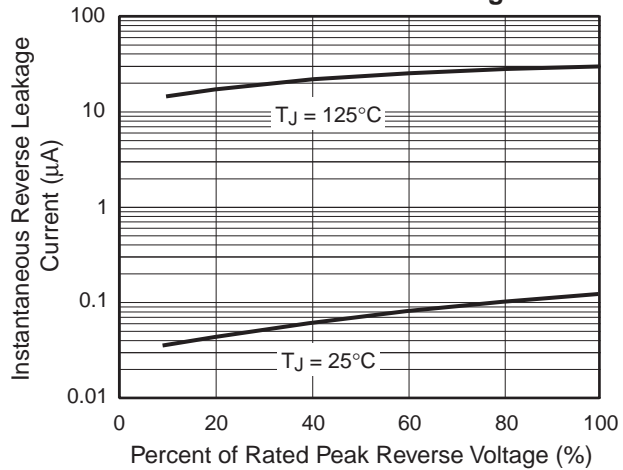
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Fig. 3 - Typical Forward Voltage Characteristics Per Leg**



**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**

