

MB2S thru MB1NS

General Purpose Bridge Rectifiers
 Reverse Voltage 200V to 1200V Forward Current 0.5A

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.



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°C unless otherwise noted)

Parameter	Symbol	MB2S	MB4S	MB6S	MB8S	MB10S	MB1NS	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	200	400	600	800	1000	1200	V
Maximum RMS Voltage	V _{RMS}	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V _{DC}	200	400	600	800	1000	1200	V
Maximum Average Forward Output Rectified Current on Glass-Epoxy P.C.B (See Fig 1) ¹	I _{F(AV)}	0.5						A
Maximum Average Forward Output Rectified Current on Aluminum Substrate (See Fig 1) ²		0.8						
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	35						A
Rating For Fusing (t<8.3ms)	I ² t	5						A ² sec
Maximum Instantaneous Forward Voltage Drop Per Leg at 0.4A	V _F	1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Leg (T _A =25°C)	I _R	5						uA
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Leg (T _A =125°C)		100						uA
Typical Thermal Resistance Per Leg ¹	R _{θJA}	85						°C/W
Typical Thermal Resistance Per Leg ²	R _{θJA}	70						
Typical Thermal Resistance Per Leg ¹	R _{θJL}	20						
Typical Junction Capacitance Per Leg at 4.0V, 1.0MHz	C _J	13						pF
Operating Junction Temperature	T _J	-55 To +150						°C
Storage Temperature	T _{STG}	-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 Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

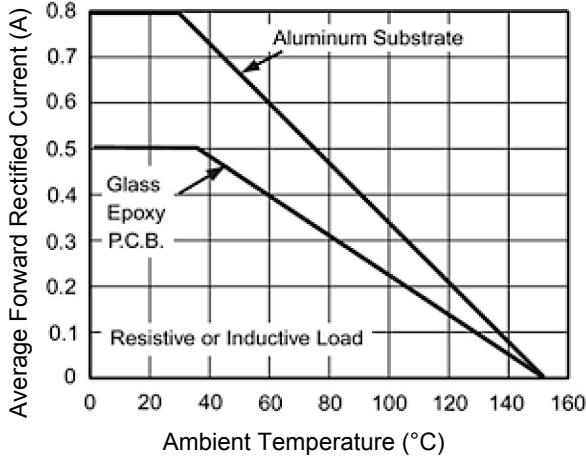


Figure 1. Derating Curve For Output Rectified Current

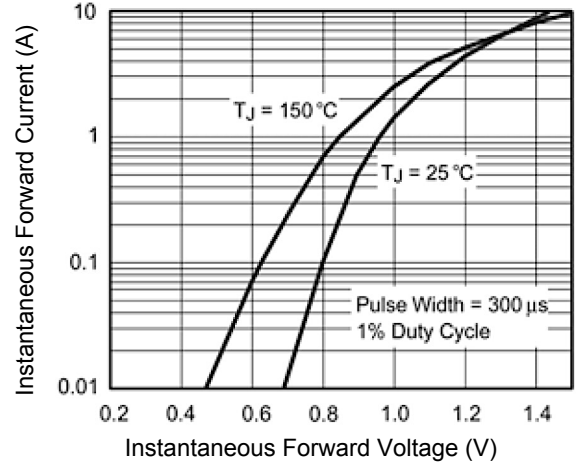


Figure 2. Typical Forward Voltage Characteristics Per Leg

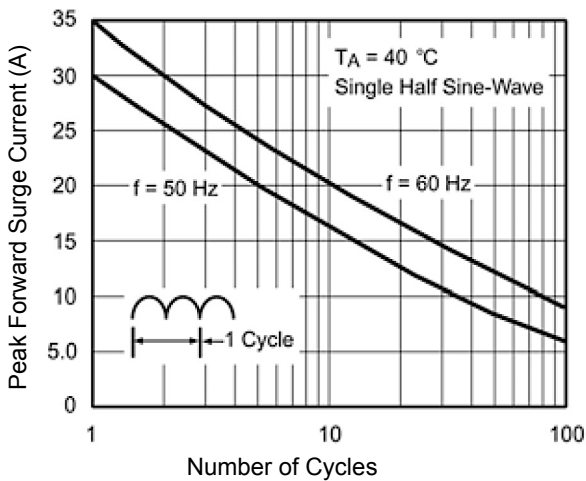


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Leg

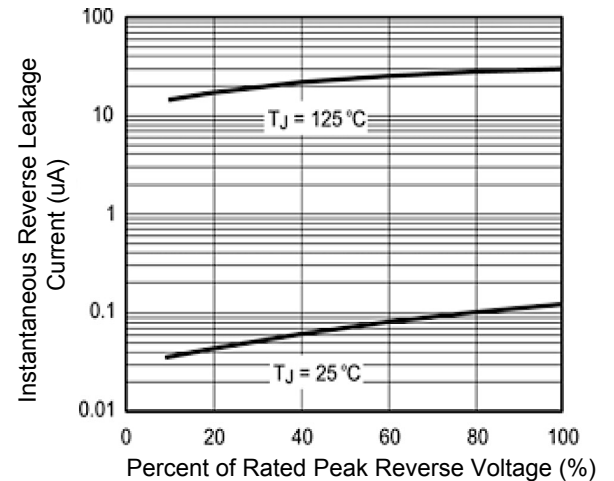


Figure 4. Typical Reverse Leakage Characteristics Per Leg

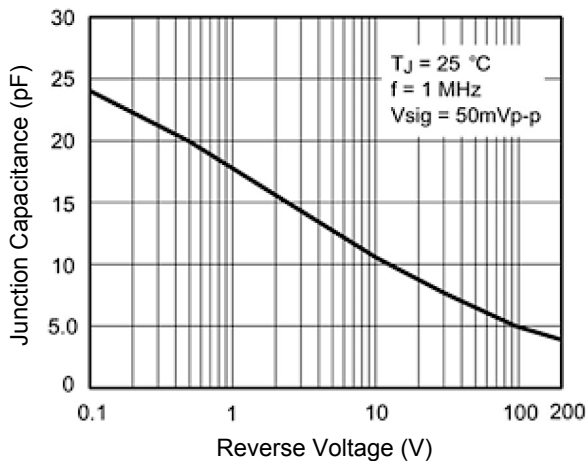


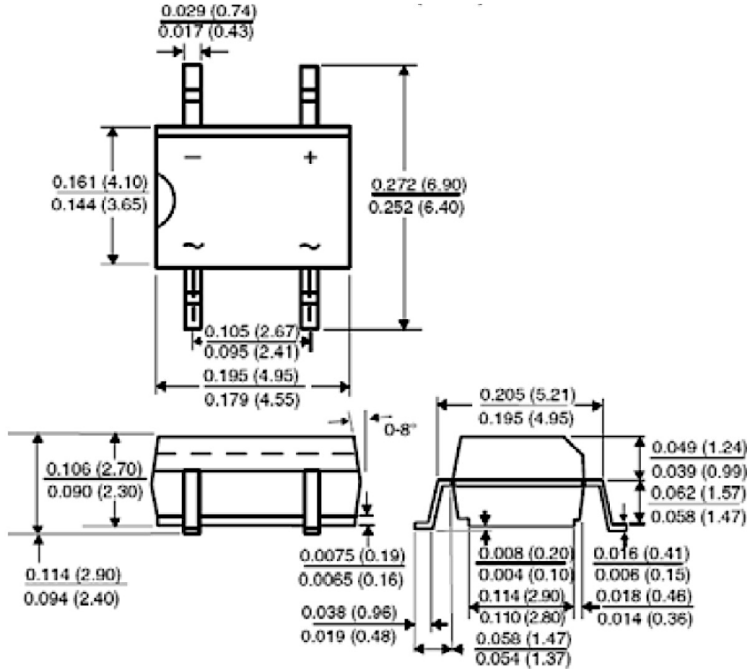
Figure 5. Typical Junction Capacitance Per Leg

MB2S thru MB1NS

General Purpose Bridge Rectifiers

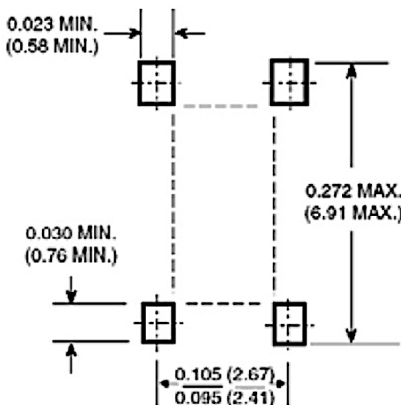
Reverse Voltage 200V to 1200V Forward Current 0.5A

Package Outline Dimensions TO-269AA (MBS)



Dimensions in inches (millimeters)

Recommended Pad Layout



Dimensions in inches (millimeters)

Order Information

Device	Package	Marking	Carrier	Quantity
MB2S	TO-269AA (MBS)	MB2S	Tape & Reel	3,000 Pcs / Reel
MB4S	TO-269AA (MBS)	MB4S	Tape & Reel	3,000 Pcs / Reel
MB6S	TO-269AA (MBS)	MB6S	Tape & Reel	3,000 Pcs / Reel
MB8S	TO-269AA (MBS)	MB8S	Tape & Reel	3,000 Pcs / Reel
MB10S	TO-269AA (MBS)	MB10S	Tape & Reel	3,000 Pcs / Reel
MB1NS	TO-269AA (MBS)	MB1NS	Tape & Reel	3,000 Pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com