GOOD-ARK
SEMICONDUCTOR

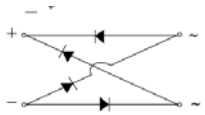
MB12S thru MB110S

Surface Mount Schottky Bridge Rectifier
Reverse Voltage 20 to 100V Forward Current 1A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge overload rating:30A peak
- Space saving
- High temperature soldering guaranteed:260°C/10 seconds

Package:TO-269AA (MBS)



Schematic Diagram

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

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Symbol	MB12S	MB14S	MB16S	MB18S	MB110S	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	V
Maximum RMS Voltage	V_{RMS}	14	28	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	V
Maximum Average Forward Output Current	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current 8.3 MS Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30					A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.50		0.70	0.85		V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg T_A=25°C	I_R	0.5					mA
T_A=100°C		20					
Typical Thermal Resistance per Leg (Note1)	$R_{\theta JA}$	88					°C/W
	$R_{\theta JL}$	28					
Operation Junction Temperature Range	Tj	-55 to +125					°C
Storage Temperature Range	T_{STG}	-55 to +150					°C

Notes: 1. Thermal resistance form junction to ambient and from junction to lead P.C.B. mounted on 0.2×0.2"(5.0×5.0mm) copper pad areas.

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Ratings and Characteristics Curves

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

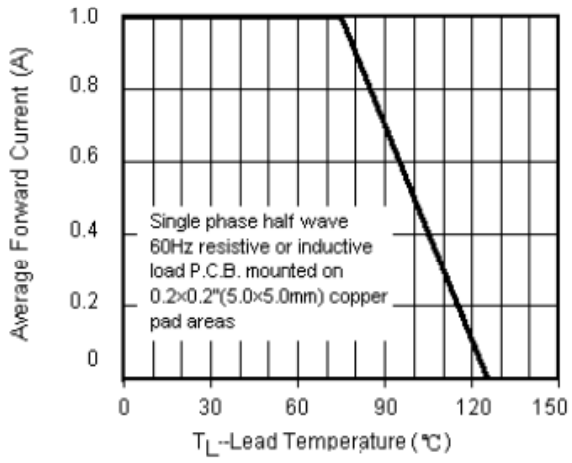


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

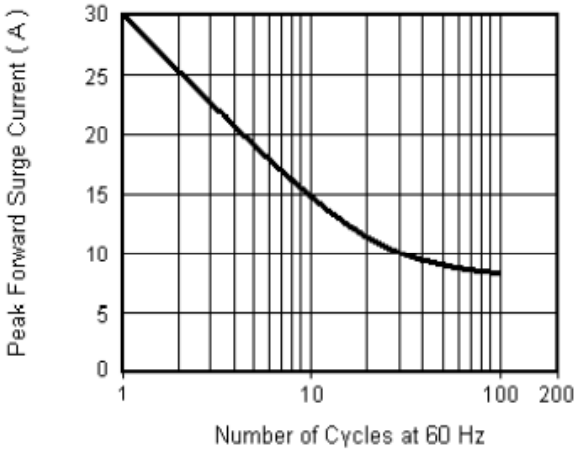


Fig.3 Typical Instantaneous Forward Characteristics

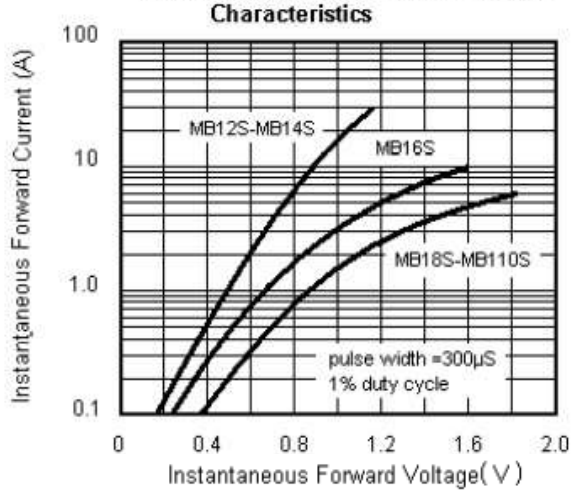
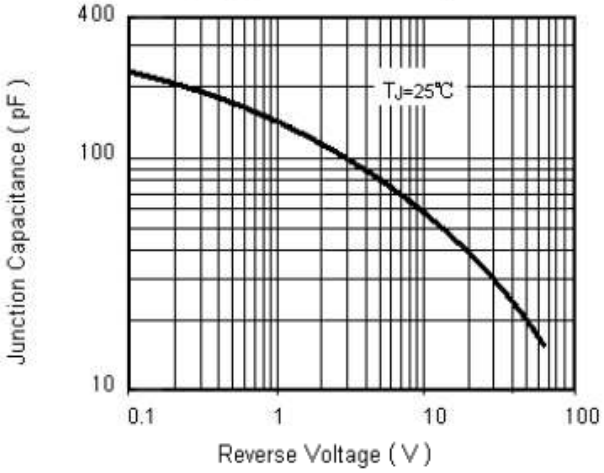


Fig.4 Typical Junction Capacitance



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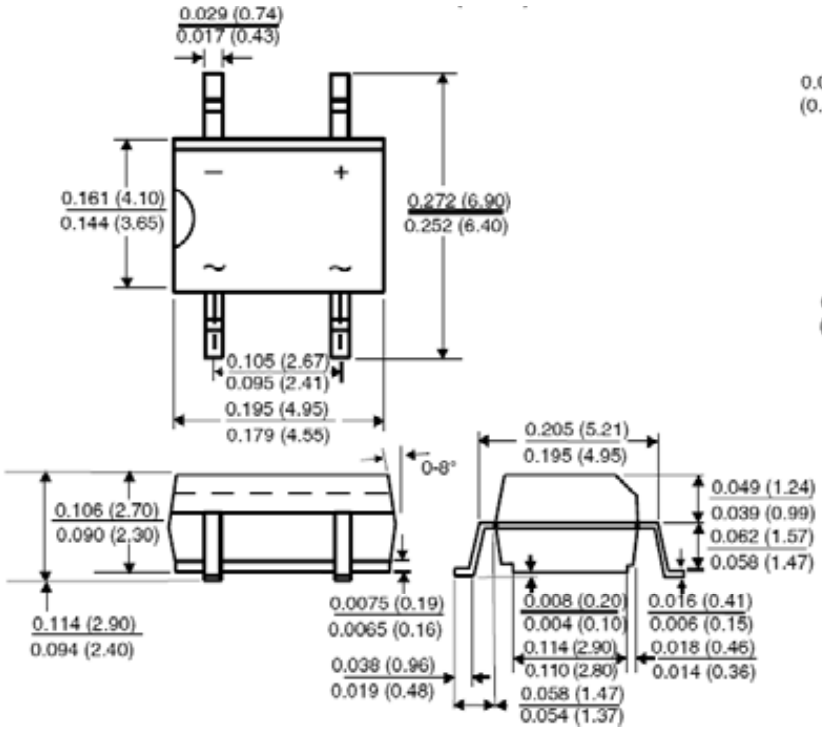
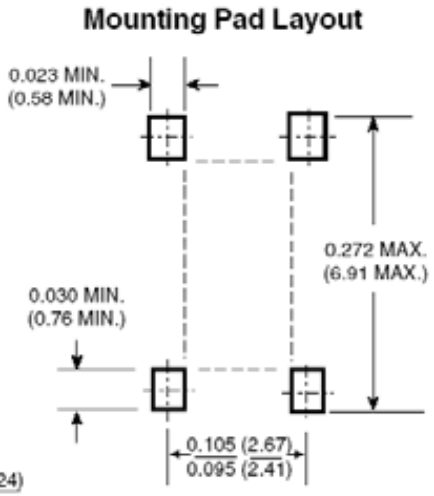
Package Outline Dimensions

TO-269AA (MBS)





Dimensions in inches and (millimeters)