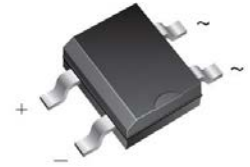


MB12S thru MB110S

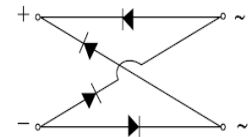
Surface Mount Schottky Bridge Rectifiers
 Reverse Voltage 20V to 100V Forward Current 1A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junctions
- 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

Maximum Ratings & Electrical Characteristics

($T_A=25^\circ\text{C}$ 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					A
Peak Forward Surge Current 8.3 MS Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30					A
Rating for Fusing ($t \leq 8.3\text{ms}$)	I^2t	3.75					A ² s
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.5		0.7		0.85	V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg	I_R	0.5					mA
		20					
Typical Junction Capacitance per at 4.0 V, 1.0 MHz	C_J	13					pF
Typical Thermal Resistance per Leg (Note1)	$R_{\theta JA}$	88					°C/W
	$R_{\theta JL}$	28					
Operation Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150					°C

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

MB12S thru MB110S

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Ratings and Characteristics Curves

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

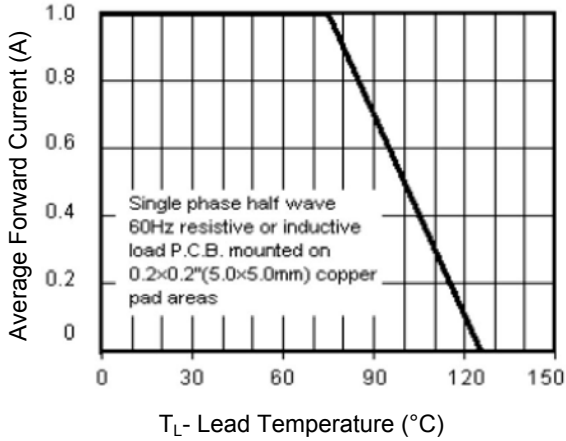


Figure 1. Forward Current Derating Curve

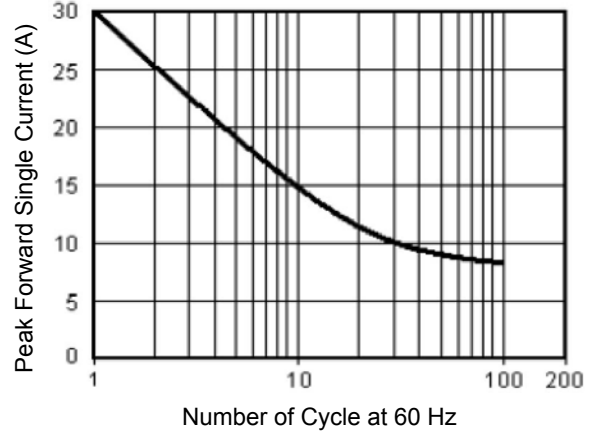


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

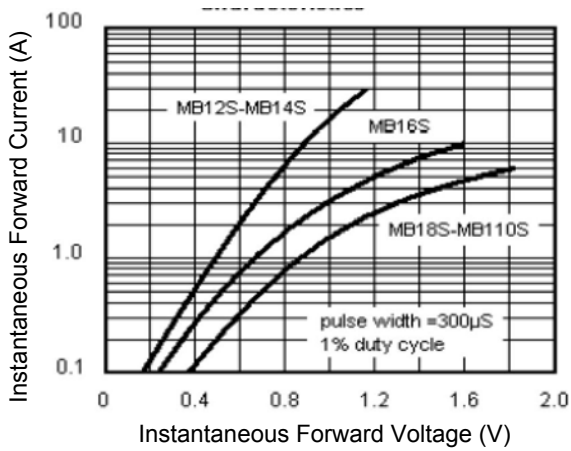


Figure 3. Typical Instantaneous Forward Characteristics

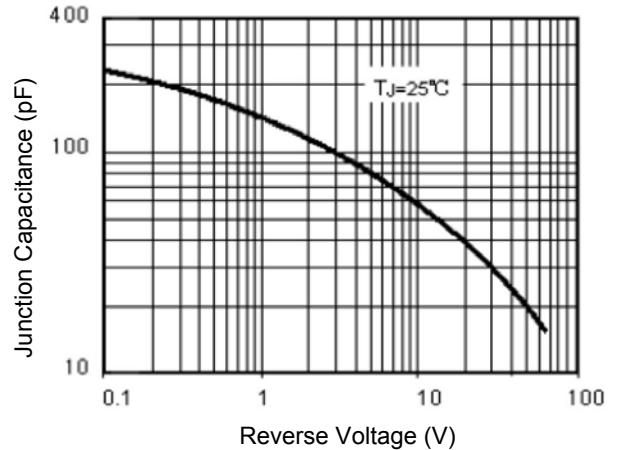


Figure 4. Typical Junction Capacitance

MB12S thru MB110S

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Package Outline Dimensions TO-269AA (MBS)

Unit: inches (mm)

