

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



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 & 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	$I_{F(AV)}$	1.0					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	I_R	0.5					mA
Typical Thermal Resistance per Leg (Note 1)	$R_{\theta JA}$	88					°C/W
	$R_{\theta JL}$	28					
Operation Junction Temperature Range	T_J	-55 to +125					°C
Storage Temperature Range	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.

Ratings and Characteristics Curves

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

Fig.1 Forward Current Derating Curve

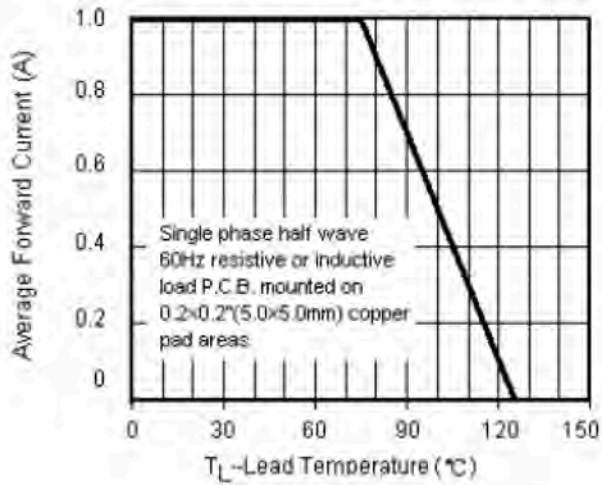


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

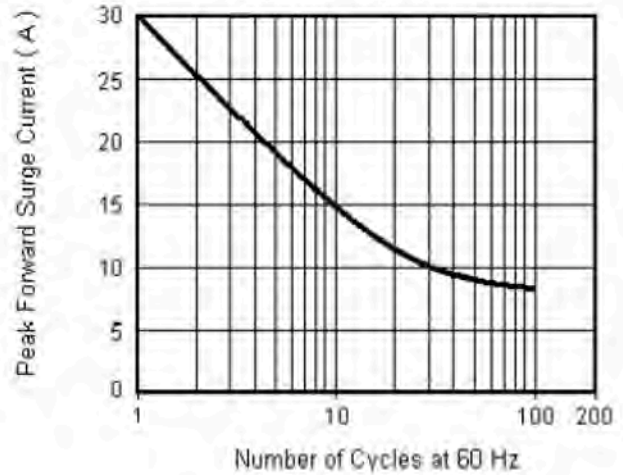


Fig.3 Typical Instantaneous Forward Characteristics

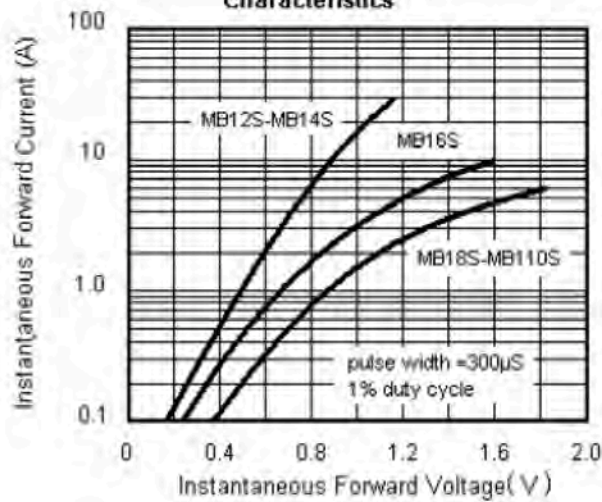
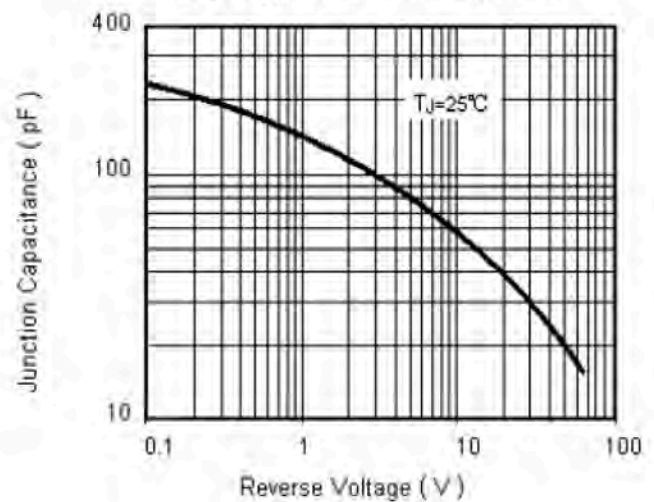
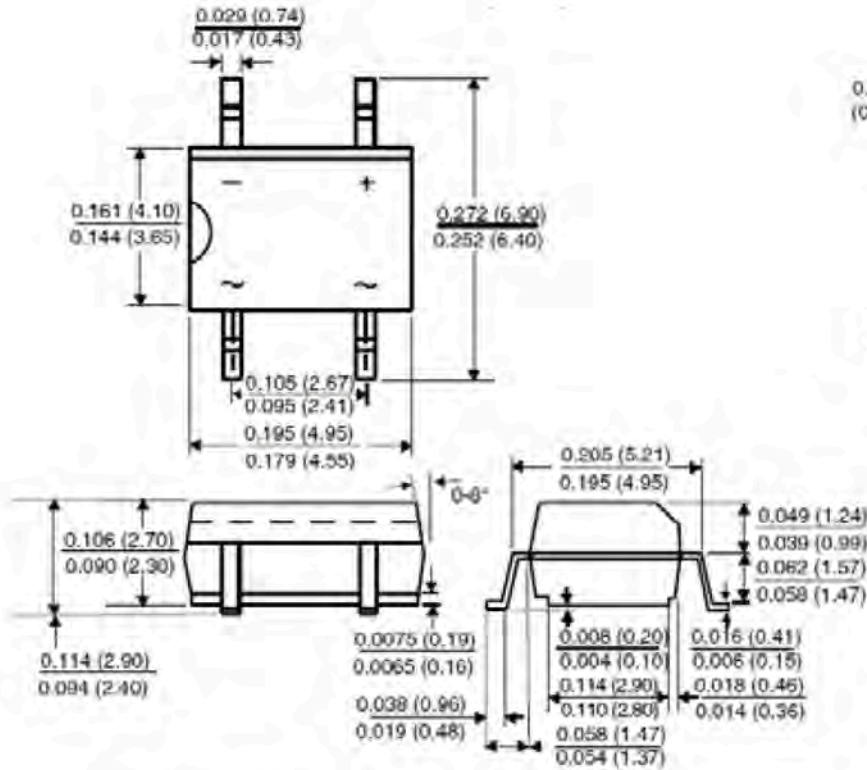


Fig.4 Typical Junction Capacitance



Package Outline Dimensions

TO-269AA (MBS)



Dimensions in inches and (millimeters)

Mounting Pad Layout

