



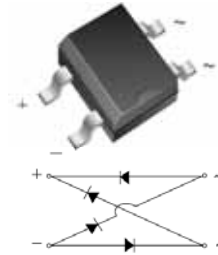
# MB12S thru MB110S

## Surface Mount Schottky Bridge Rectifier

Reverse Voltage 20 to 100 Volts Forward Current 1.0 Ampere

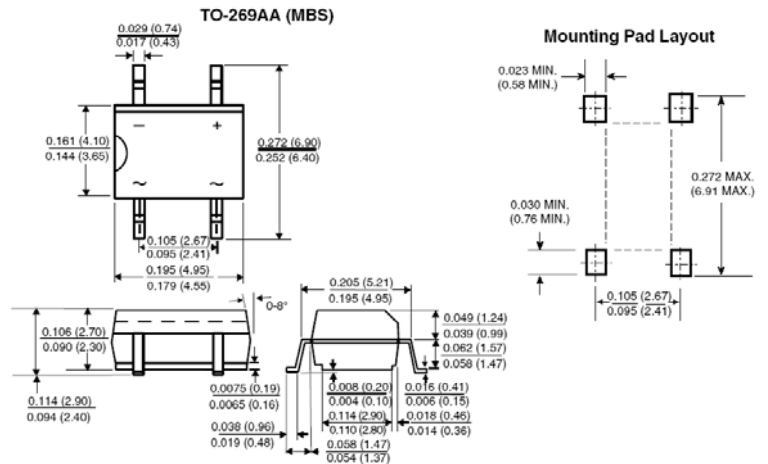
### Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge overload rating:30A peak
- ◆ Saves space on printed circuit boards
- ◆ 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:0.078 oz.,0.22g



### 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	VF	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(Note1)	$R_{\theta JA}$	88					$^{\circ}\text{C}/\text{W}$
	$R_{\theta JL}$	28					
Operation junction temperzture range	$T_J$	-55 to +125					$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150					$^{\circ}\text{C}$

**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

(TA = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

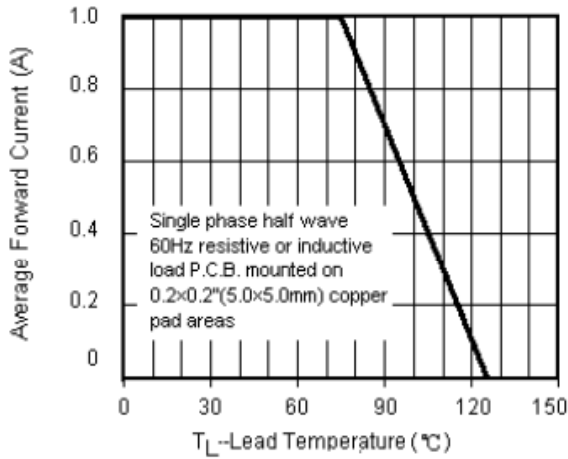


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

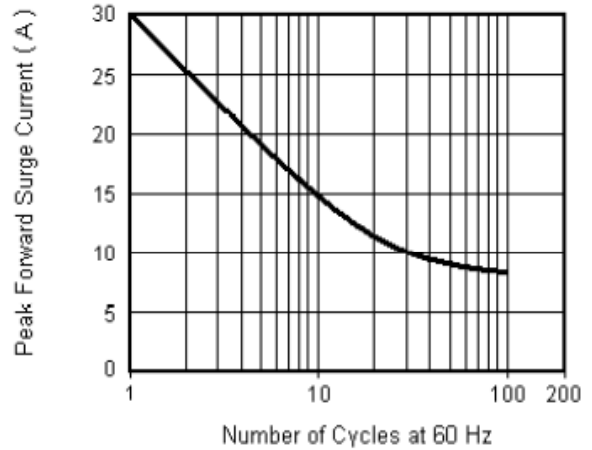


Fig.3 Typical Instantaneous Forward Characteristics

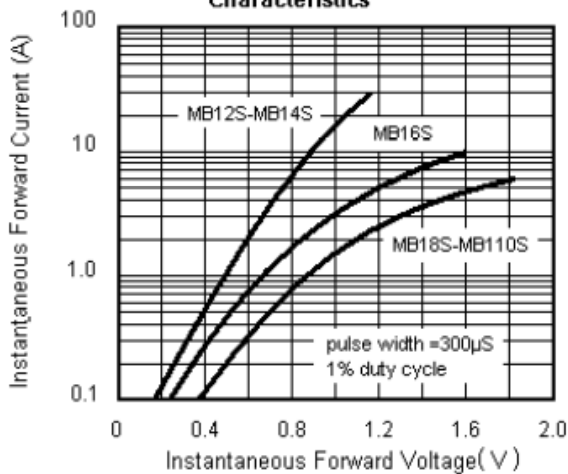


Fig.4 Typical Junction Capacitance

