

## MB12S THRU MB120S

### SINGLE PHASE 1.0 AMP SURFACE MOUNT BRIDGE RECTIFIERS



### FEATURES

- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded plastic technique
- \* High surge current capability
- \* Polarity: Symbol molded on body
- \* Mounting position: Any
- \* Weight: 0.12 grams

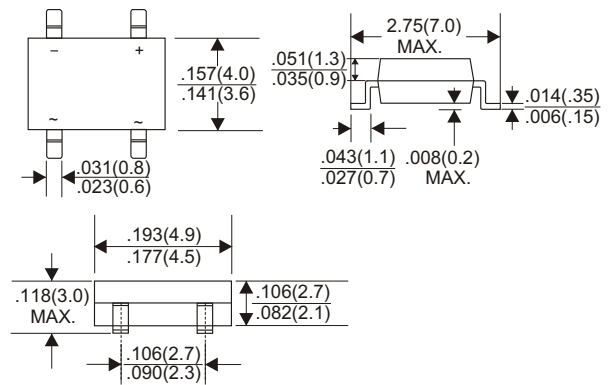
### VOLTAGE RANGE

20 to 200 Volts

### CURRENT

1.0 Ampere

### MBS



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

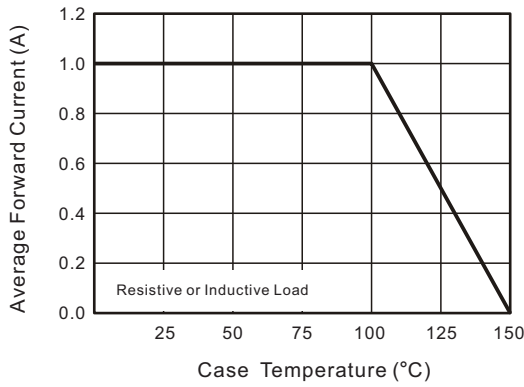
Rating 25°C ambient temperature unless otherwise specified.  
 Single phase half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

TYPE NUMBER	MB12S	MB14S	MB16S	MB18S	MB110S	MB115S	MB120S	UNIT
Maximum Recurrent Peak Reverse Voltage	20	40	60	80	100	150	200	V
Maximum RMS Voltage	14	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at Ta=40°C(Note 1)	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	3.0							A
Maximum Forward Voltage Drop per Bridge Element at 1.0A D.C.	0.55	0.7	0.85	0.9				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	0.3		0.2		0.1			mA
	10		5		2			mA
Typical Thermal Resistance R <sub>JA</sub> (Note 2)	100							°C/W
Operating Temperature Range, T <sub>J</sub>	-55 — +150							°C
Storage Temperature Range, T <sub>STG</sub>	-55 — +150							°C

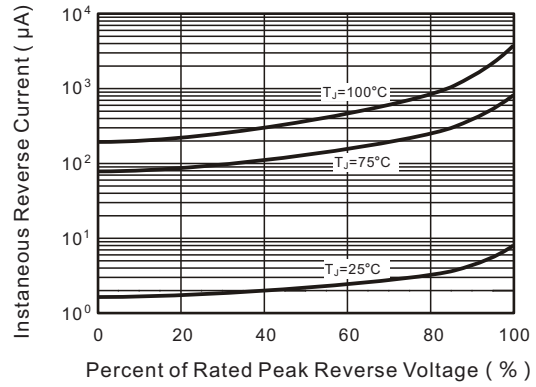
NOTES: 1. Mounted on P.C. Board.  
 2. Thermal Resistance Junction to Ambient.

## RATING AND CHARACTERISTIC CURVES (MB12S THRU MB120S)

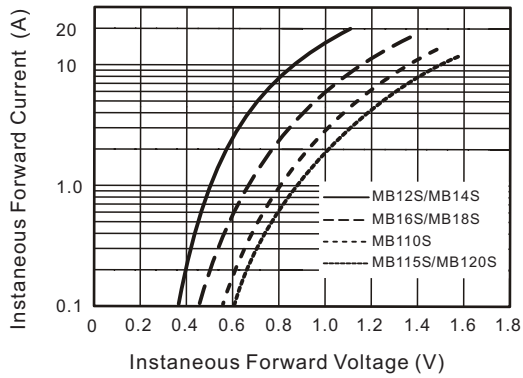
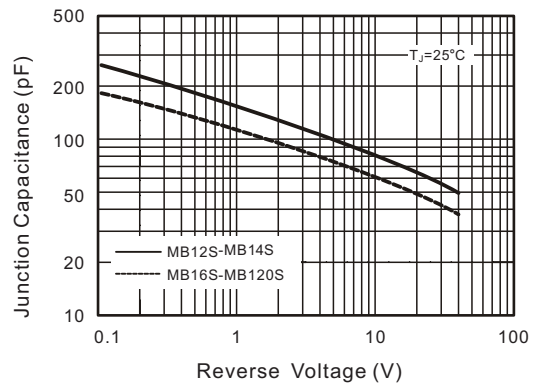
**Fig.1 Forward Current Derating Curve**



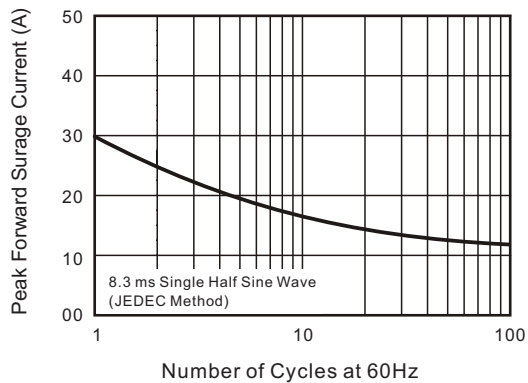
**Fig.2 Typical Reverse Characteristics**



**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.6- Typical Transient Thermal Impedance**

