

# MBS2-MBS10

Single Phase 1.0 AMP Glass Passivated Bridge Rectifiers



## FEATURES

- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction utilizing molded plastic technique
- ✧ High temperature soldering guaranteed:  
260°C / 10 seconds / 0.375" ( 9.5mm )  
lead length at 5 lbs., ( 2.3 kg ) tension
- ✧ Small size, simple installation  
Pure tin plated terminal , Lead free. Leads solderable per MIL-STD-202, Method 208
- ✧ High surge current capability

## MECHANICAL DATA

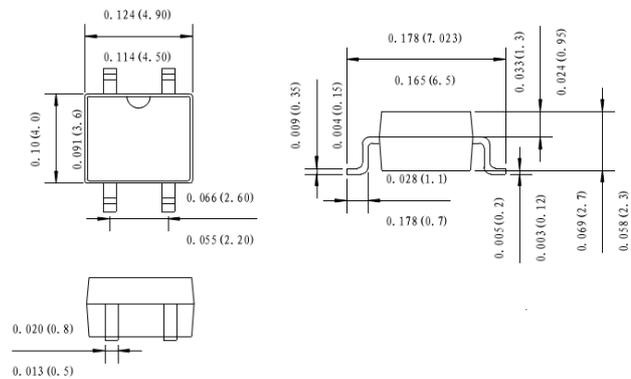
- ✧ Case: Molded plastic body
- ✧ Mounting position : as Marking
- ✧ Weight: 0.12 grams

## VOLTAGE RANGE

200 to 1000 Volts

## CURRENT

1.0 Ampere



## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	MBS2	MBS4	MBS6	MBS8	MBS10	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	800	1000	V
Maximum Average Forward Rectified Current On glass-epoxy P.C.B. On aluminum substrate	$I_{F(AV)}$	0.5 0.8 1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	35					A
Maximum Instantaneous Forward Voltage (Note 1) @ 0.4A	$V_F$	1.0					V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25\text{ }^\circ\text{C}$ 5 $T_A=125\text{ }^\circ\text{C}$ 100					$\mu\text{A}$
Rating of fusing ( $t < 8.3\text{ms}$ )	$I^2T$	5.08					$\text{A}^2\text{S}$
Typical Junction Capacitance Per Leg (Note 2)	$C_j$	13					pF
Typical Thermal Resistance (Note 3) (Note 4) (Note 3)	$R_{\theta JA}$ $R_{\theta JA}$ $R_{\theta JL}$	85 70 20					$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	- 55 to + 150					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150					$^\circ\text{C}$

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Measure at 1.0MHz and Applied Reverse Voltage of 4.0 Volts D.C.

Note 3: On glass epoxy P.C.B. mounted on 0.05" x 0.05" (1.3mm x 1.3mm) pads

Note 4: On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20mm x 20mm) mounted on 0.05" x 0.05" (1.3mm x 1.3mm) solder pads

## RATINGS AND CHARACTERISTICS CURVES (MBS2 THRU MBS10)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

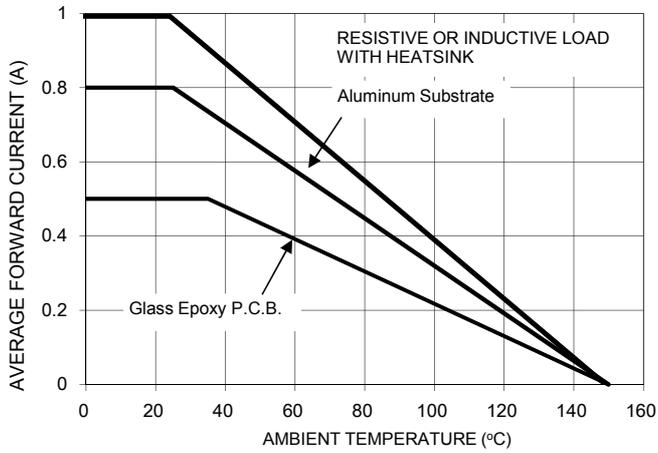


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

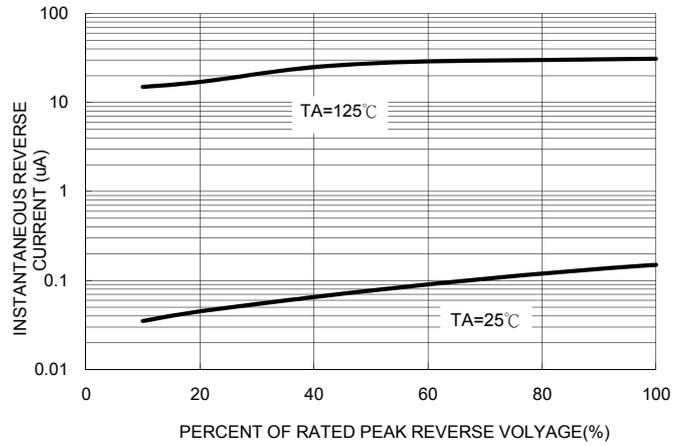


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

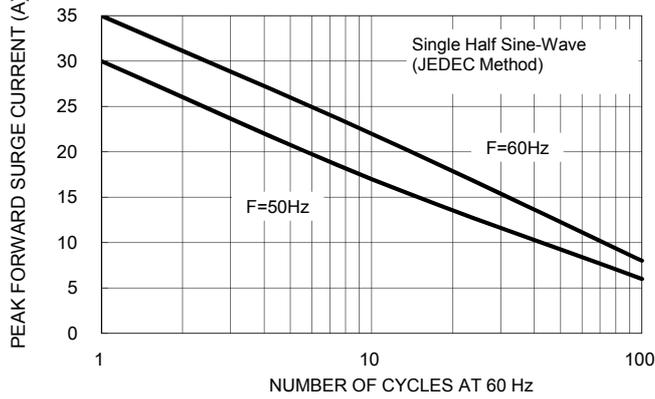


FIG. 4 TYPICAL JUNCTION CAPACITANCE PER LEG

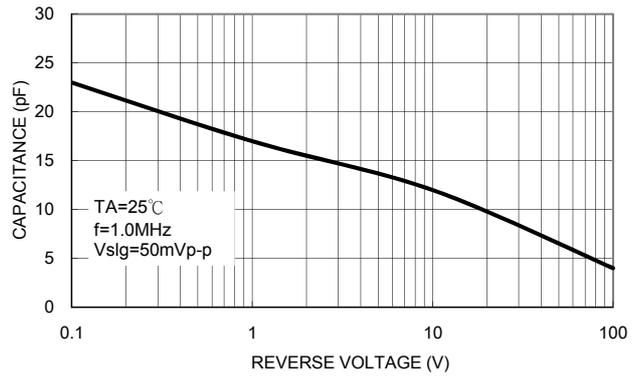


FIG. 5 TYPICAL FORWARD CHARACTERISTICS PER LEG

