

MBS2-MBS10

Single Phase 0.8 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

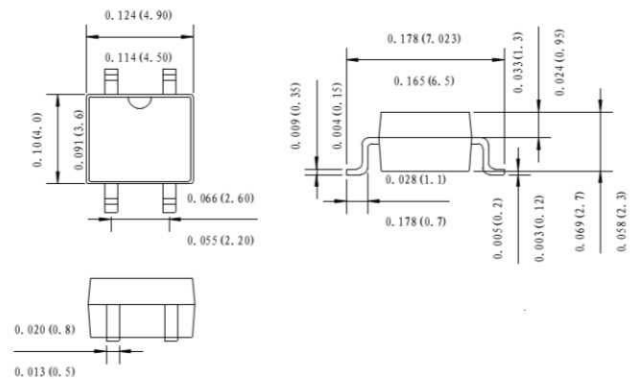
- ✧ Case: Molded plastic body
- ✧ Mounting position : as Marking
- ✧ Weight: 0.12 grams

VOLTAGE RANGE

200 to 1000 Volts

CURRENT

0.8 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					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 $T_A=25\text{ }^{\circ}\text{C}$ $T_A=125\text{ }^{\circ}\text{C}$	I_R	5 100					μA
Rating of fusing ($t<8.3\text{ms}$)	I^2T	5.08					A^2S
Typical Junction Capacitance Per Leg (Note 2)	C_j	13					pF
(Note 3) Typical Thermal Resistance (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

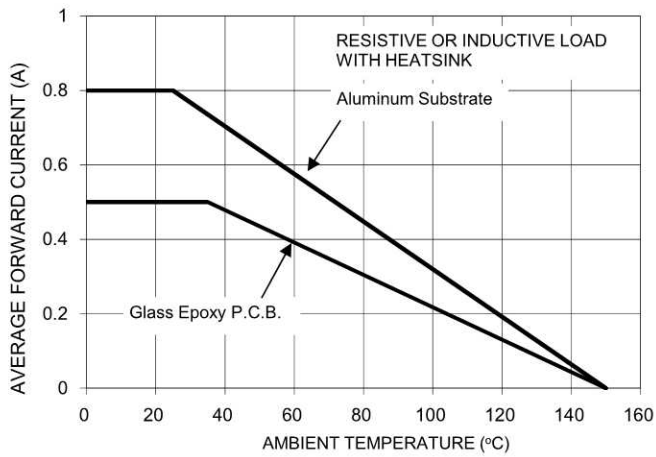


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

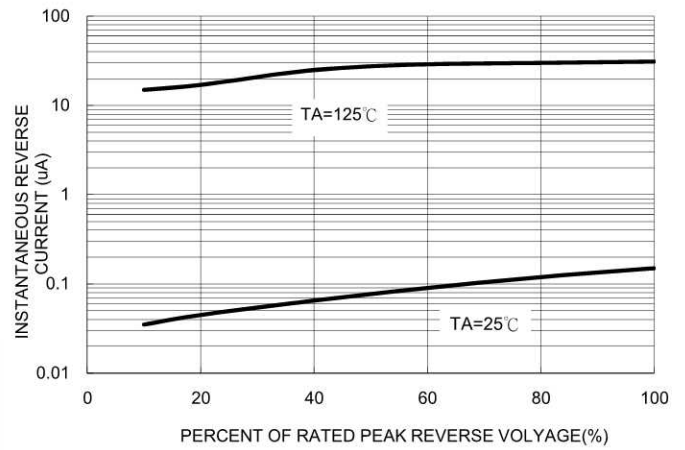


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

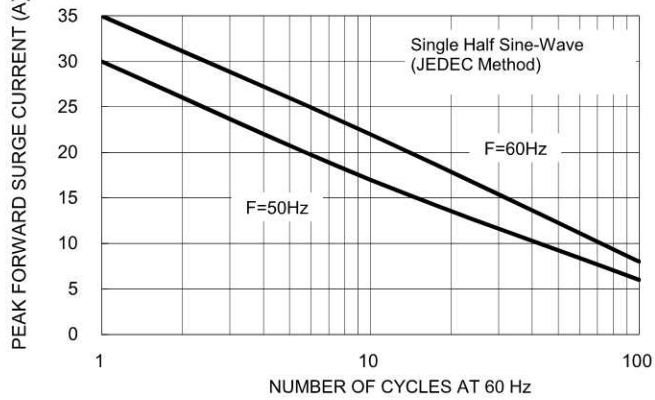


FIG. 4 TYPICAL JUNCTION CAPACITANCE PER LEG

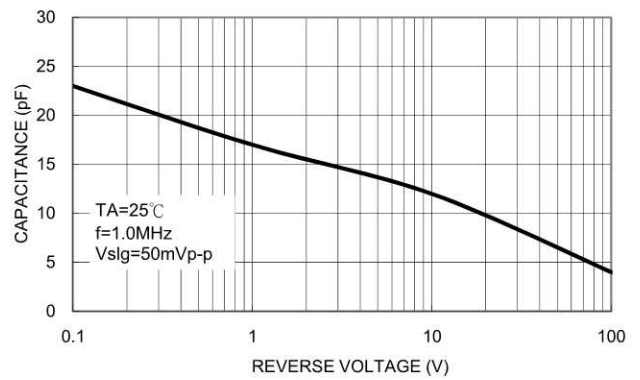


FIG. 5 TYPICAL FORWARD CHARACTERISTICS PER LEG

