

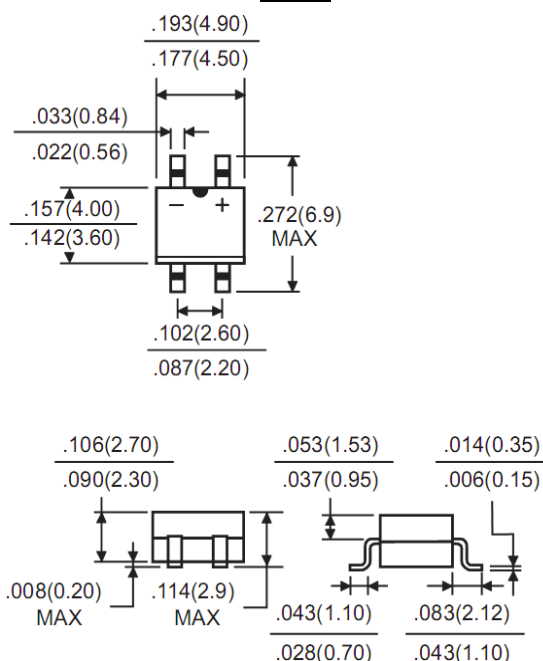
**MBS**

**Features**

- ✧ UL Recognized File # E-326243
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction utilizing molded plastic technique
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs., (2.3kg) tension
- ✧ Small size, simple installation
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

**Mechanical Data**

- ✧ Case: Molded plastic body
- ✧ Terminal: Leads solderable per MIL-STD-202 Method 208
- ✧ Weight: 0.123 grams


**Dimensions in inches and (millimeters)**
**Marking Diagram**


- MBSX = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

**Maximum Ratings and Electrical Characteristics**

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	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			$\mu\text{A}$
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 CHARACTERISTIC CURVES (MBS2 THRU MBS10)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

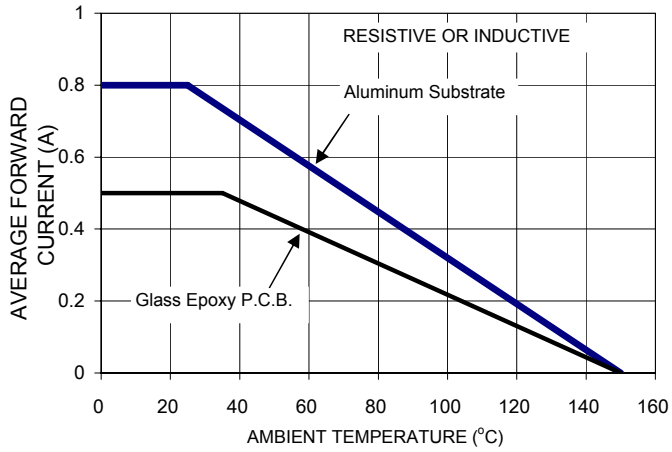


FIG. 2 TYPICAL REVERSE CHARACTERISTICS PER LEG

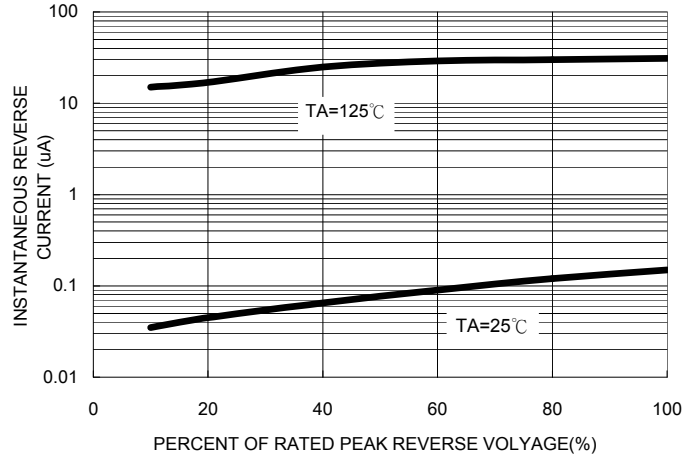


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

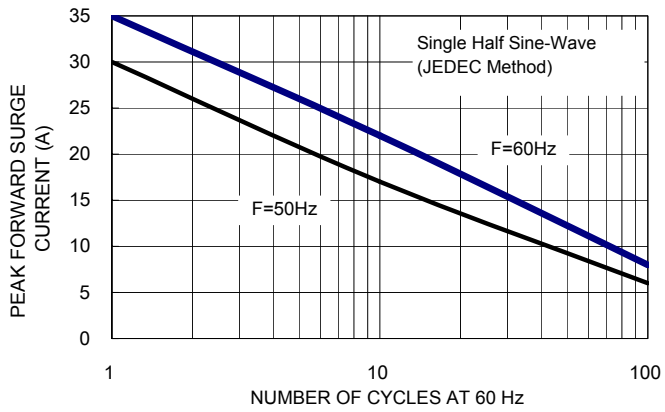


FIG. 4 TYPICAL JUNCTION CAPACITANCE PER LEG

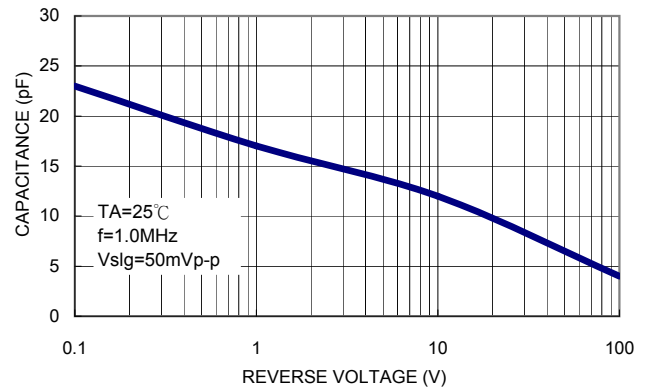


FIG. 5 TYPICAL FORWARD CHARACTERISTICS PER LEG

