

EMB1ASTHRU EMB1JS

1.0A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



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

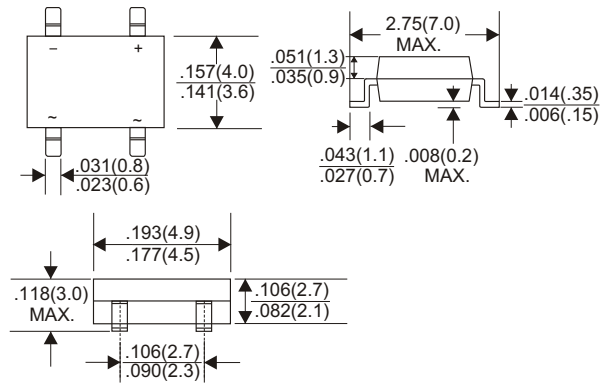
VOLTAGE RANGE

50 to 1000 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%.

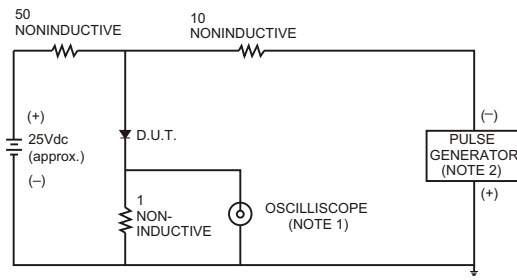
| TYPE NUMBER | EMB1ASE | EMB1BSE | EMB1CSE | EMB1DSE | EMB1ESE | EMB1GSE | EMB1JSE | UNIT |
|---|------------|---------|---------|---------|---------|---------|---------|------|
| Maximum Recurrent Peak Reverse Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | 35 | 70 | 105 | 140 | 210 | 280 | 480 | V |
| Maximum DC Blocking Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current at Ta=25°C | 1.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 30 | | | | | | | A |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A. | 1.0 | | | 1.3 | | 1.7 | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | 5.0 | | | 200 | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | 35 | | | | | | | nS |
| Typical Junction Capacitance (Note 2) | 15 | | | | | | | pF |
| Typical Thermal Resistance R JA (Note 3) | 80 | | | | | | | °C/W |
| Operating and Storage Temperature Range Tj, Tstg | -65 — +150 | | | | | | | °C |

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance from Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (EMB1AS THRU EMB1JS)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

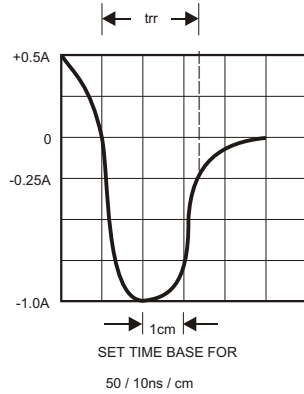


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

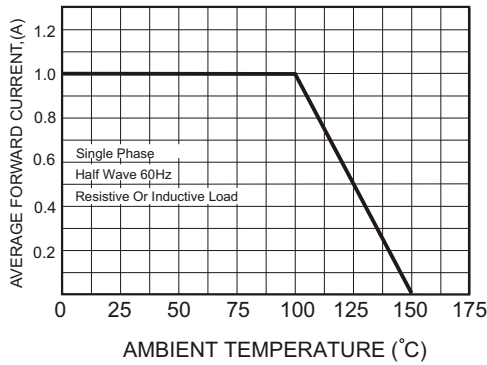


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

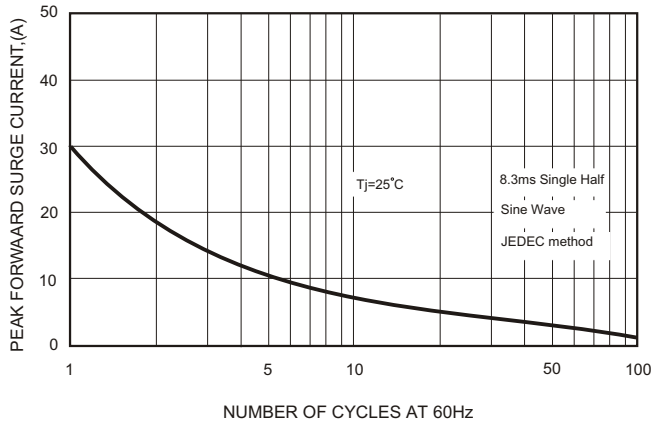


FIG.4-TYPICAL FORWARD CHARACTERISTICS

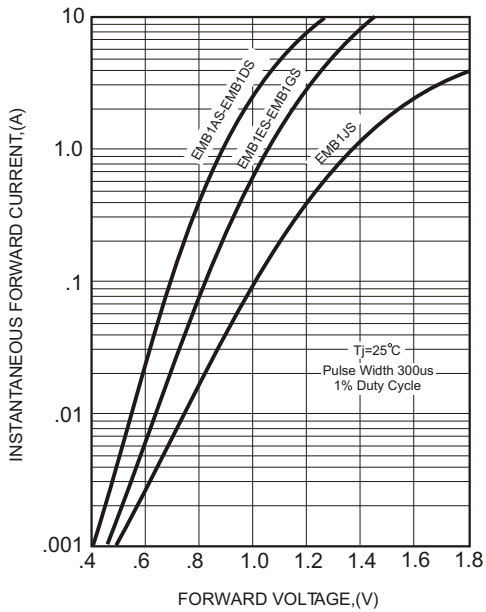


FIG.5-TYPICAL REVERSE CHARACTERISTICS

