# SILICON BRIDGE RECTIFIERS

**VOLTAGE RANGE: 200 --- 1000 V**
**CURRENT: 0.5 A**

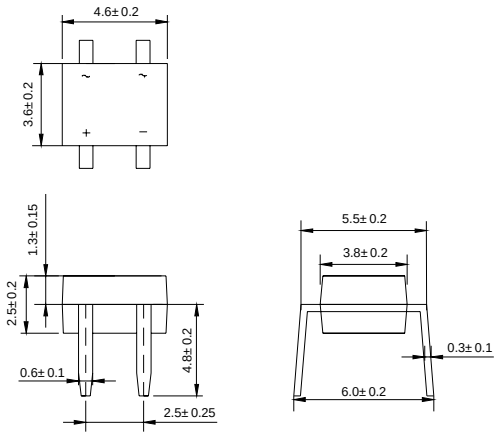
**FEATURES**

- ◇ This series is UL recognized under Component Index, file number E239431
- ◇ Glass passivated chip junctions
- ◇ Plastic materrial has U/L flammability classification 94V-O
- ◇ High surge overload rating: 35A peak
- ◇ Saves space on printed circuit boards
- ◇ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs. (2.3kg) tension

**MECHANICAL DATA**

Case: Molded plastic body over passivated junctions
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity: Polarity symbols marked on body
Dimensions in inches and (millimeters)
Mounting Position: Any
Weight: 0.0078 ounce, 0.22 gram

**MBM**




Dimensions in millimeters

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

| | | MB2M | MB4M | MB6M | MB8M | MB10M | UNITS |
|---|---|---|---|---|---|---|---|
| Maximum recurrent 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 forw ard output current @$T_A$=25℃ | $I_{F(AV)}$ | 0.5(1) 0.8(2) | | | | | A |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load | $I_{FSM}$ | 35 | | | | | A |
| Maximum instantaneous forw ard voltage @ 0.4 A | $V_F$ | 1.0 | | | | | V |
| Maximum reverse current @$T_A$=25℃ at rated DC blocking voltage @$T_A$=125℃ | $I_R$ | 5.0 100 | | | | | μA |
| Typical junction capacitance per leg (NOTE 3) | $C_J$ | 13 | | | | | pF |
| Typical thermal resistance per leg (NOTE 1) | $R_{\theta JA}$ $R_{\theta JL}$ | 85 20 | | | | | ℃/W |
| Operating junction temperature range | $T_J$ | - 55 ---- + 150 | | | | | ℃ |
| Storage temperature range | $T_{STG}$ | - 55 ---- + 150 | | | | | ℃ |

NOTES: (1) On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
(2) On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

**FIG.1 -- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**

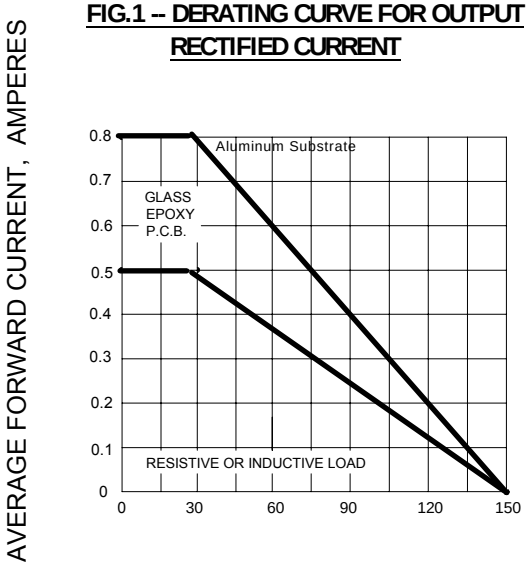



**FIG.2 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**

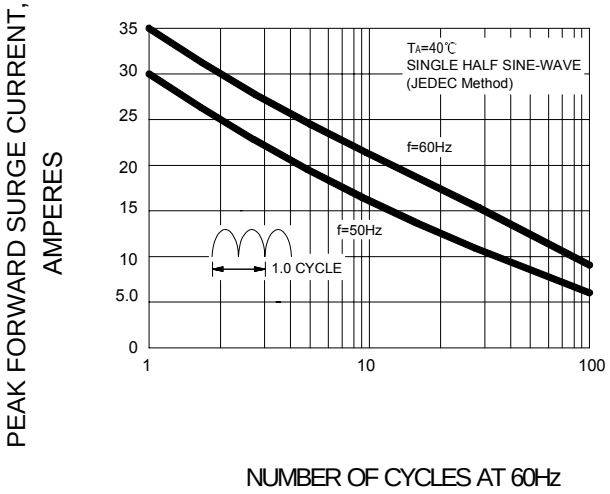



**FIG.3 -- TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG**

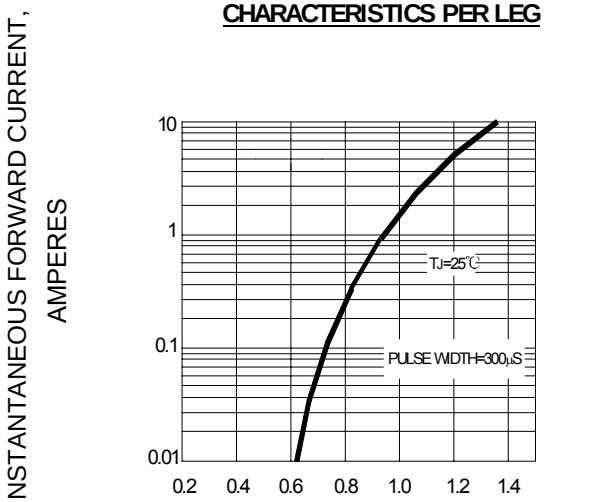



**FIG.4 -- TYPICAL REVERSE CHARACTERISTIC**

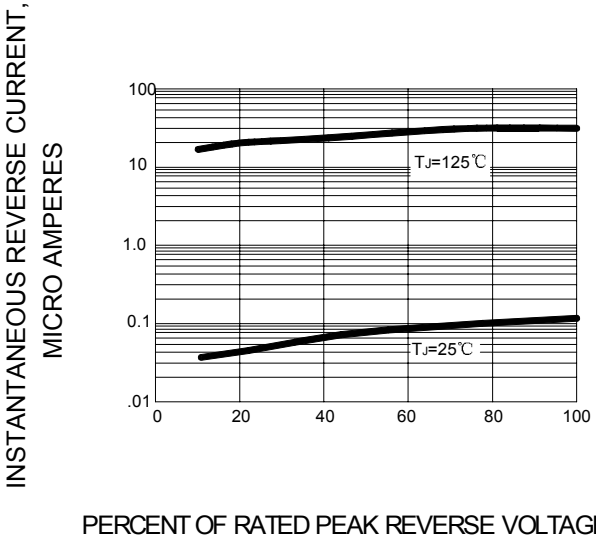



**FIG.5 -- TYPICAL JUNCTION CAPACITANCE PER ELEMENT**