



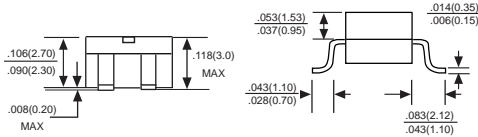
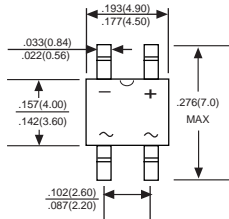
THE DATASHEET OF MB10S



SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Voltage Range - 200 to 1000 Volts Current - 0.5/0.8 Ampere

MBS



Dimensions in inches and (millimeters)

FEATURES

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs., (2.3kg) tension
- ◆ Small size, simple installation
- ◆ High surge current capability

MECHANICAL DATA

Case: Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Mounting Position: Any

Weight: 0.008 ounce, 0.22 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load derate current by 20%.

| | SYMBOLS | MB2S | MB4S | MB6S | MB8S | MB10S | UNITS |
|---|-----------------|------|------|-------------|------|-------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward rectified current at $T_A=30^\circ C$ On glass-epoxy P.C.B. (Note1) On aluminum substrate (Note2) | $I_{F(AV)}$ | | | 0.5 0.8 | | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | | | 30 | | | Amps |
| Maximum instantaneous forward voltage drop per leg at 0.4A | V_F | | | 1.0 | | | Volts |
| Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage $T_A=125^\circ C$ | I_R | | | 5.0 500 | | | μA μA |
| Typical junction capacitance per leg (Note3) | C_J | | | 15 | | | pF |
| Typical thermal resistance per leg | $R_{\theta JA}$ | | | 75 | | | $^\circ C/W$ |
| Operating temperature range | T_J | | | -55 to +150 | | | $^\circ C$ |
| storage temperature range | T_{STG} | | | -55 to +150 | | | $^\circ C$ |

NOTES: 1. On glass epoxy P.C.B. mounted on 0.05x0.05" (1.3x1.3mm) pads

2. On aluminum substrate P.C.B. with on area of 0.8"x0.8" (20x20mm) mounted on 0.05x0.05" (1.3x1.3mm) solder pad

3. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR

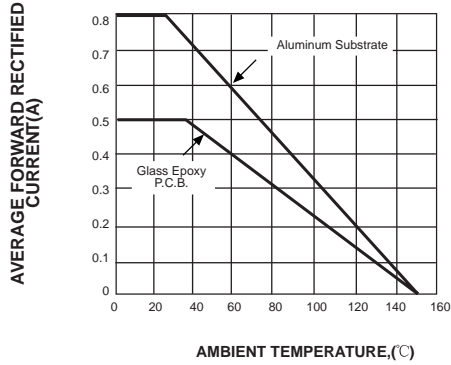


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

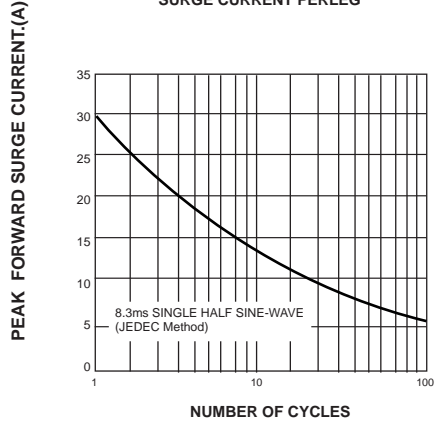


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

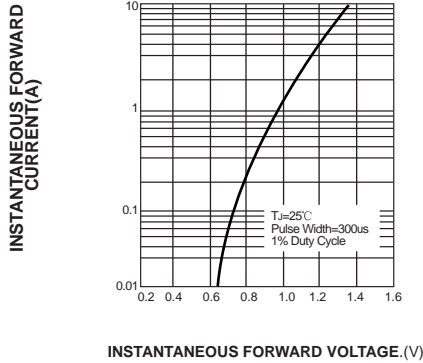


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

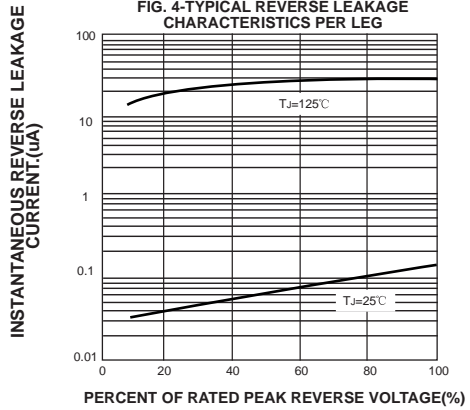
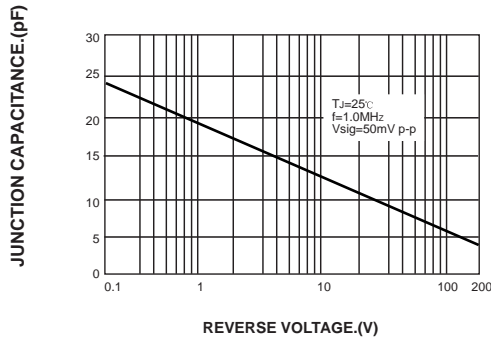


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG



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