

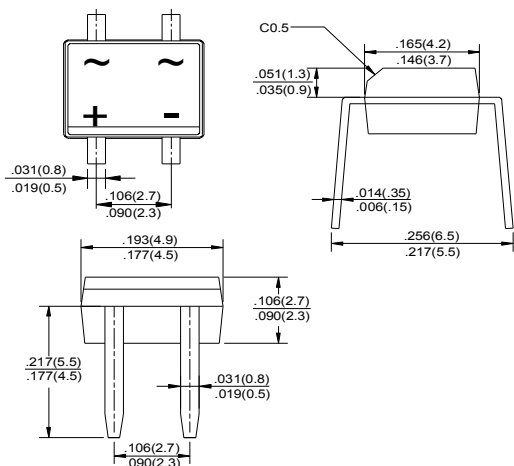


# MB2M THRU MB10M

## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

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

### MBM



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:** 0.0044 ounce, 0.125 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%.

MDD Catalog Number	SYMBOLS	MDD MB2M	MDD MB4M	MDD MB6M	MDD MB8M	MDD MB10M	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 $T_c=30^\circ\text{C}$ On glass-epoxy P.C.B. On aluminum substrate	$I_{F(AV)}$	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 $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 500					$\mu\text{A}$ $\mu\text{A}$
Typical junction capacitance per leg (Note3)	$C_J$	15					pF
Typical thermal resistance per leg	$R_{\theta JA}$	75					$^\circ\text{C/W}$
Operating temperature range	$T_J$	-55 to +150					$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

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.



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# RATINGS AND CHARACTERISTIC CURVES MB2M THRU MB10M

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR

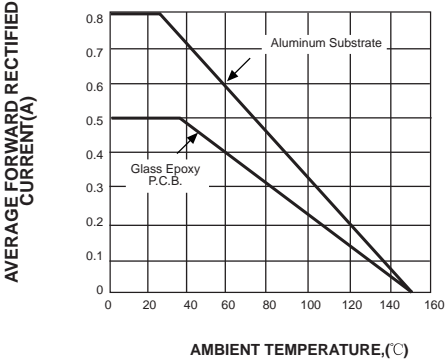


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

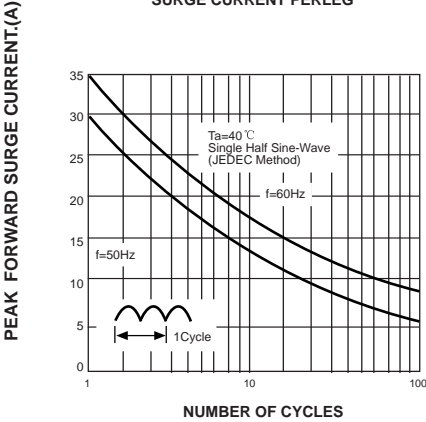


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

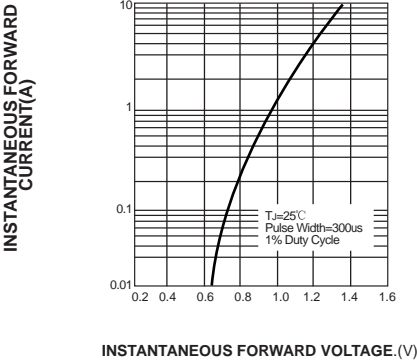


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

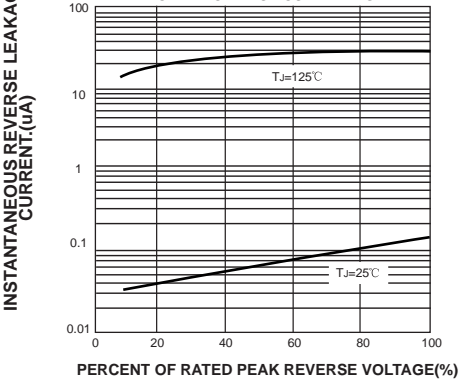


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG

