

## MB1M~MB10M

### Single Phase 0.5Amp Glass passivated Bridge Rectifiers

#### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed  
250°C/10 seconds at terminals

#### Mechanical Data

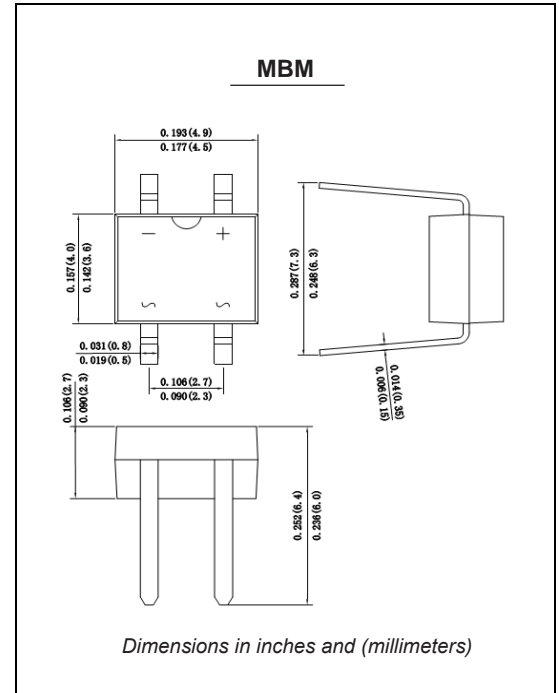
**Case:** Molded plastic body

**Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbol marking on body

**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 current derate by 20%.

	SYMBOLS	MB1M	MB2M	MB4M	MB6M	MB8M	MB10M	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_L=30^\circ C$ On glass-epoxy P.C.B (Note 1) On aluminum substrate (Note 2)	$I_{AV}$	0.5 0.8						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0						Amps
Maximum instantaneous forward voltage at 0.5A	$V_F$	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						$\mu A$
Typical junction capacitance (Note 3)	$C_J$	15.0						pF
Typical thermal resistance	$R_{qJA}$	75.0						$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-50 to +155						$^\circ C$

**Note:** 1. Mounted on glass epoxy PC board with 1.3\*1.3mm solder pad  
2. Mounted on aluminum substrate PC board with 1.3\*1.3mm solder pad  
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# Ratings And Characteristic Curves

## MB1M THRU MB10M

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

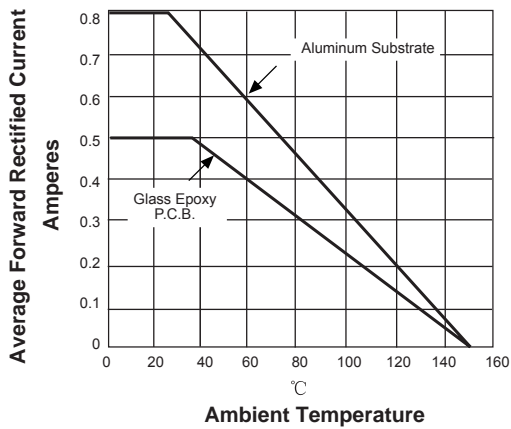


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

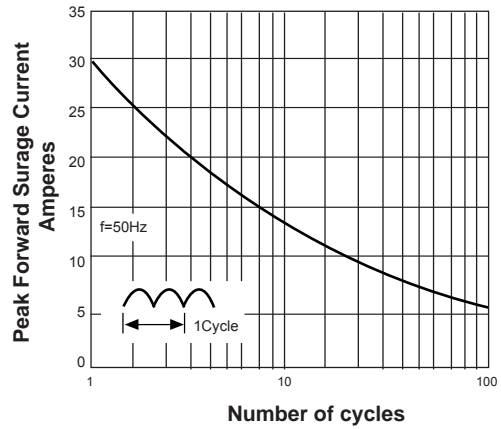


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

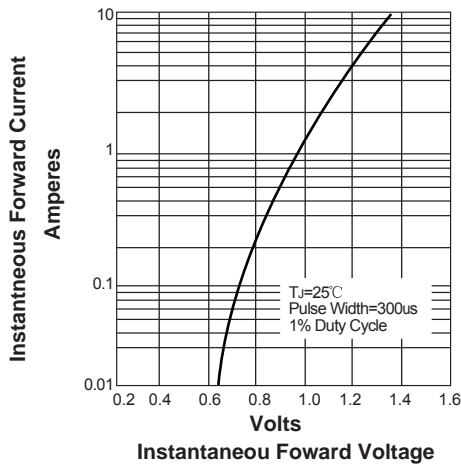


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

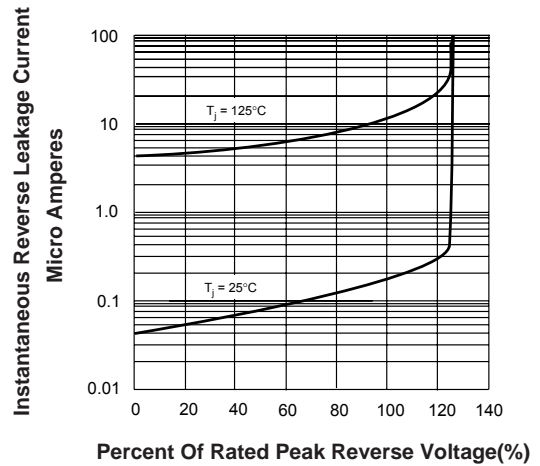


FIG. 5-TYPICAL JUNCTION CAPACITANCE

