

MB05S THRU MB10S

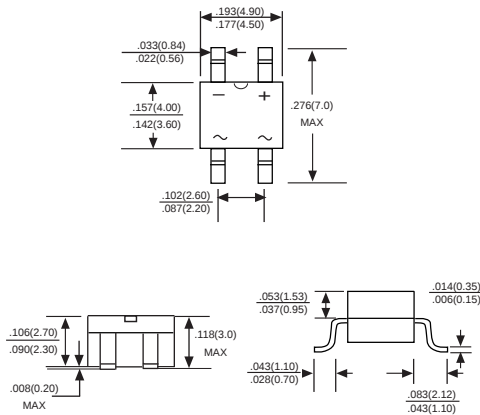
RoHS
COMPLIANT



GLASS PASSIVATED MINI BRIDGE RECTIFIERS

Reverse Voltage -50 to 1000Volts Forward Current -0.5/0.8Ampere

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
- ◆ Glass passivated chip junction
- ◆ This series is UL recognized component
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

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	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_A=30^\circ\text{C}$ 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 at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	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							$^\circ\text{C/W}$
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.

RATINGS AND CHARACTERISTIC CURVES MB05S THRU MB10S

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR

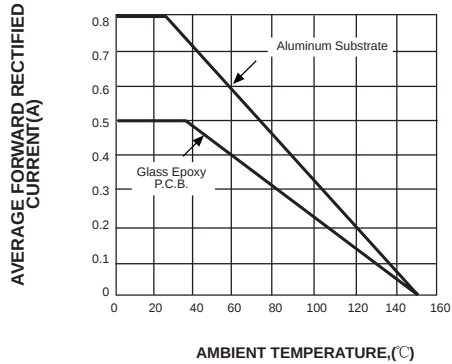


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

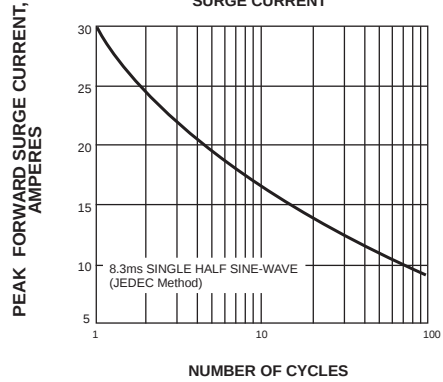


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

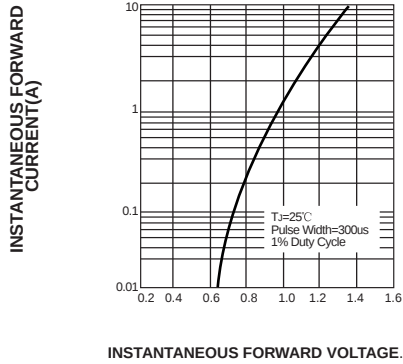


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

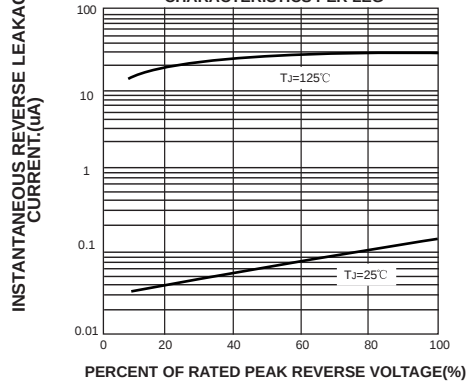


FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG

