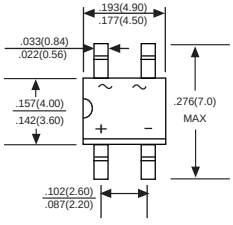
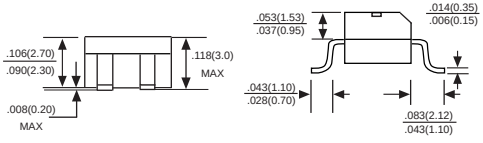
MBS SERIES

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℃/10 seconds at 5 lbs., (2.3kg) tension
- Small size, simple installation
- Leads solderable per MIL-STD-202, Method 208
- 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℃ 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℃ On glass-epoxy P.C.B.	$I_{F(AV)}$	0.5					Amps
On aluminum substrate		0.8					
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℃	I_R	5.0					uA
at rated DC blocking voltage T_A=100℃		100					uA
Typical junction capactiance per leg(Note3)	C_J	15					pF
Typical thermal resistance per leg	$R_{\theta JA}$	75					℃/W
Operating temperature range	T_J	-55 to +150					℃
storage temperature range	T_{STG}	-55 to +150					℃

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

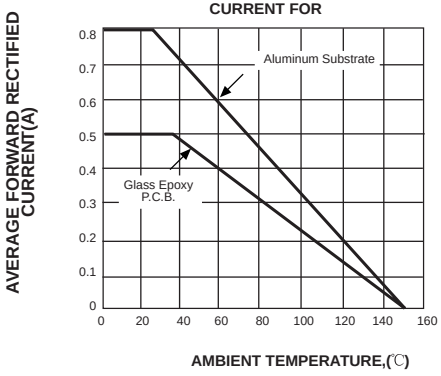


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

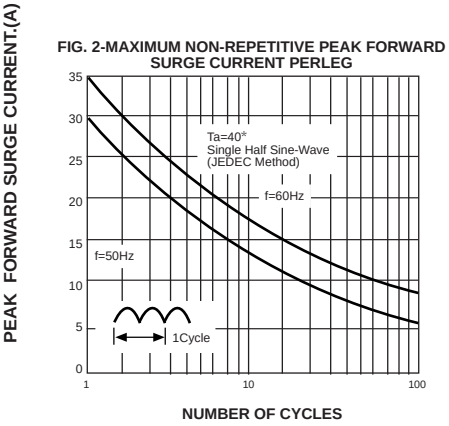


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

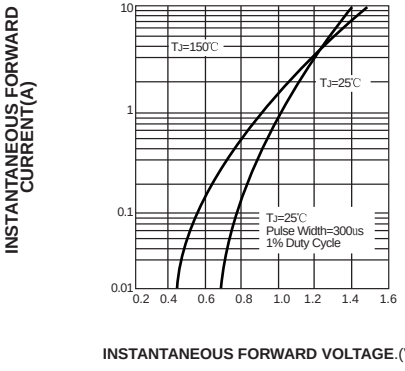


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

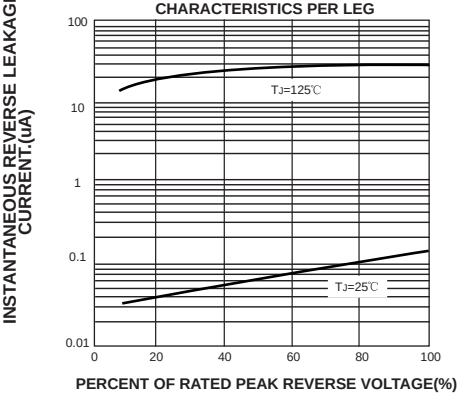
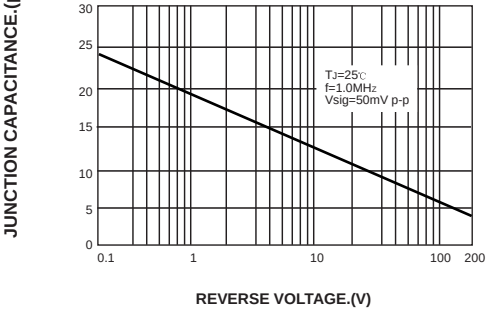



FIG. 5-TYPICAL JUNCTION CAPACTITANE PER LEG