MB005S THRU MB10S

REVERSE VOLTAGE: **50 to 1000 VOLTS**
FORWARD CURRENT: **0.5 AMPERE**

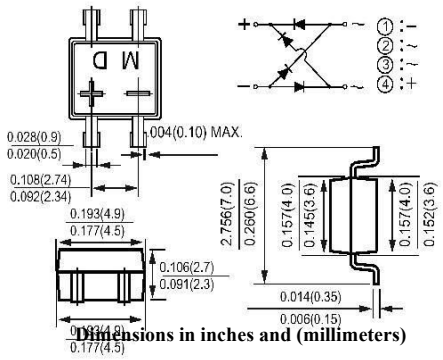
FEATURES

· Glass passivated chip junction
· Low forward voltage drop
· High surge overload rating of 30 Amperes peak
· Ideal for printed circuit board
· High temperature soldering guaranteed:
260°C for 10 seconds

MECHANICAL DATA

Case: Molded plastic, MD-S
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
Mounting position: Any Weight:
0.008ounce, 0.22gram

MD-S



Dimensions in inches and (millimeters)

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	*MB005S*	*MB1S*	*MB2S*	*MB4S*	*MB6S*	*MB8S*	*MB10S*	Units
Maximum Recurrent 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 (see Fig. 1) on glass-epoxy P.C.B (Note 2) on aluminum substrate (Note 3)	$I_{(AV)}$	0.5 0.8							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							**Amp**
Maximum Forward Voltage at 0.4A DC and 25℃	V_F	1.0							**Volts**
Maximum Reverse Current at T_A=25℃ at Rated DC Blocking Voltage T_A=125℃	I_R	5.0 500							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	13							**pF**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	70							**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							℃

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2- On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
3- On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

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Characteristic Curves (TA=25 ℃ unless otherwise noted)

Fig.1 Derating Curve For Output Rectified Current

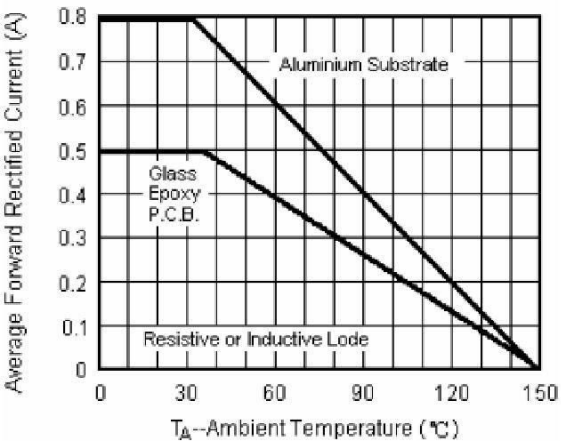

Fig.2 Maximum Non-Repetitive Peak Forward Surge Current Per Leg

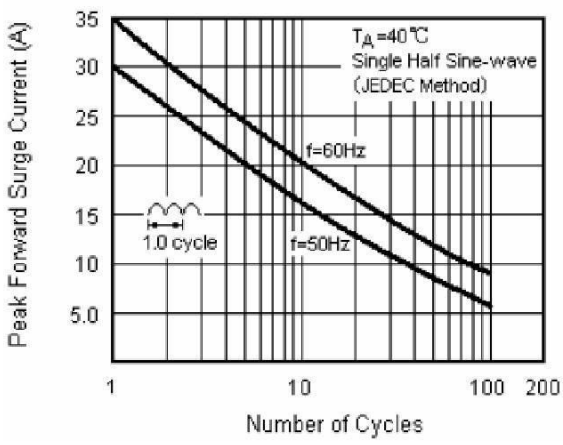

Fig.3 Typical Forward Voltage Characteristics Per Leg

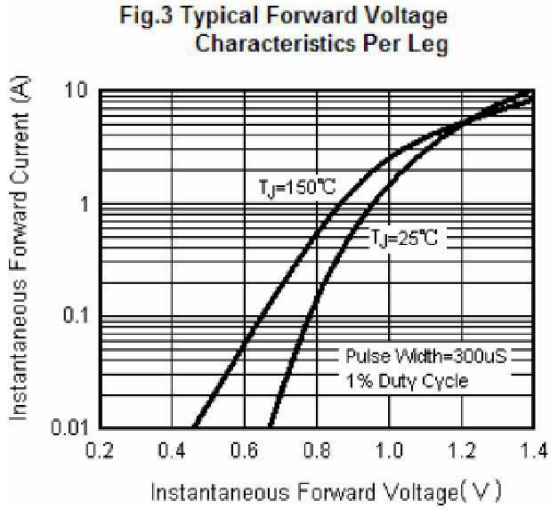

Fig.4 Typical Reverse Leakage Characteristics Per Leg

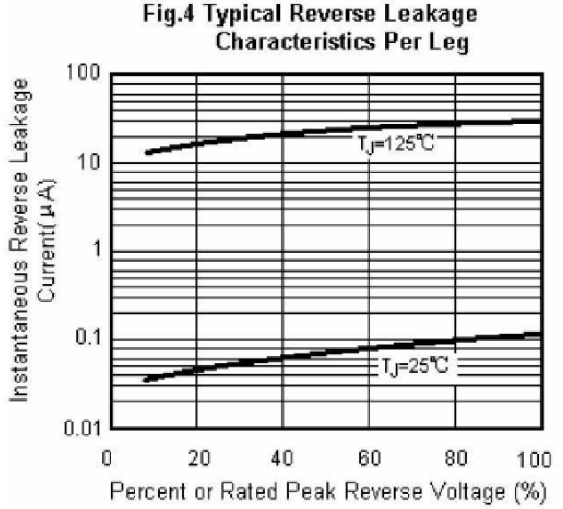

Fig.5 Typical Junction Capacitance Per Leg