

Features

1. Ideal for printed circuit board
2. Reliable low cost construction utilizing molded plastic technique
3. High temperature soldering guaranteed:
260°/10 seconds at 5 lbs., (2.3kg) tension
4. Small size, simple installation
5. High surge current capability

Mechanical Data

Case : JEDEC MBS Molded plastic body

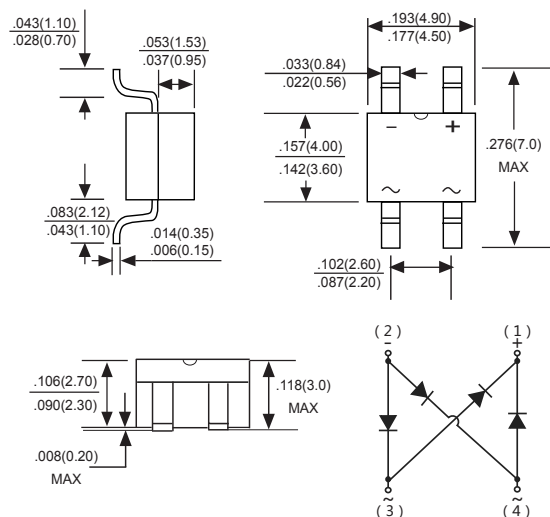
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.008 ounce, 0.22 grams

MBS



Dimensions in inches and (millimeters)

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%.

Parameter	SYMBOLS	MB05S	MB1S	MB2S	MB4S	MB6S	MB8S	MB10S	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
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							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage drop per leg at $I_F=0.4A$	V_F	1.0							V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	5 0.5							μA mA
Typical junction capacitance (Note 3)	C_J	13							pF
Typical thermal resistance	$R_{\theta JC}$	70							$^\circ\text{C/W}$
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

Fig.1 Average Rectified Output Current Derating Curve

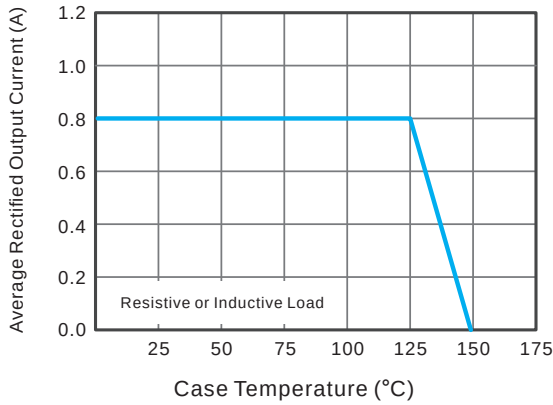


Fig.2 Typical Reverse Characteristics

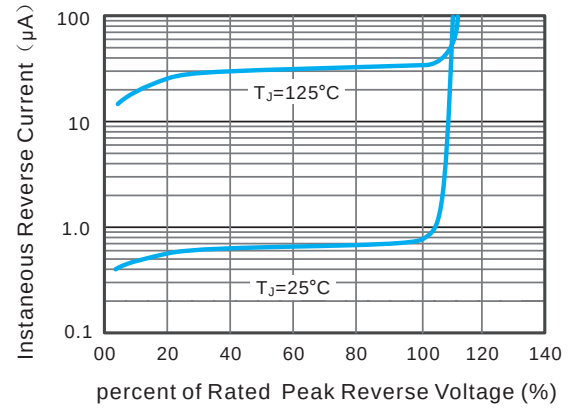


Fig.3 Typical Instaneous Forward Characteristics

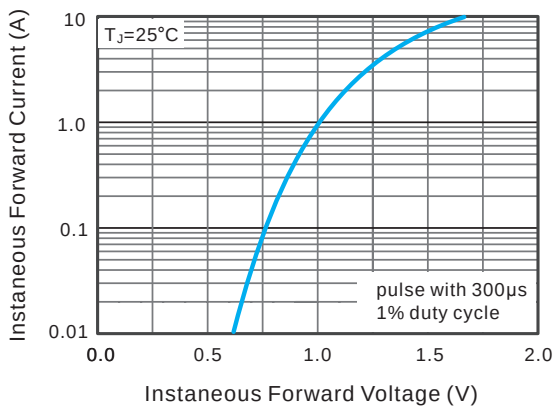


Fig.4 Typical Junction Capacitance

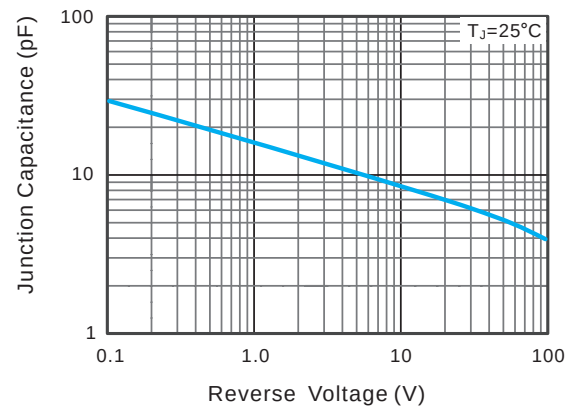
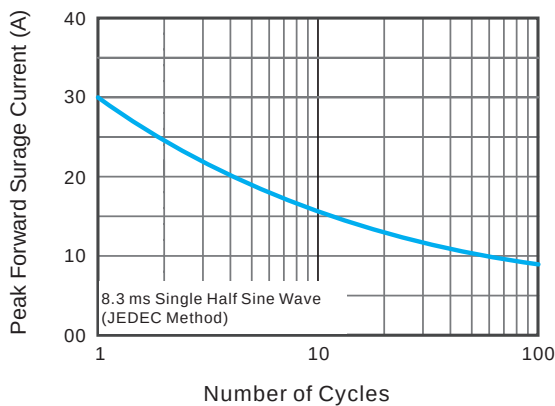
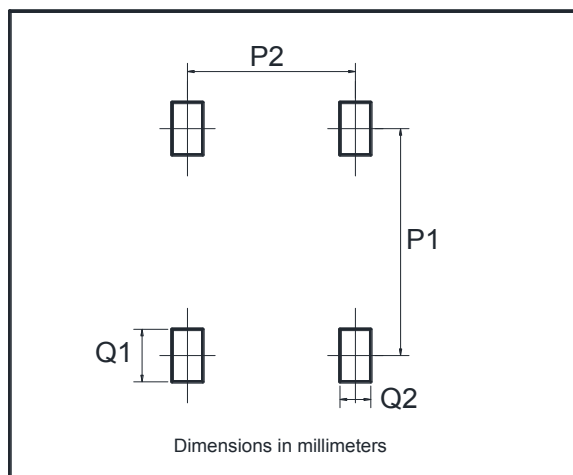


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



Suggested Pad Layout



Dim	Min
P1	6.00
P2	2.40
Q1	1.84
Q2	1.20