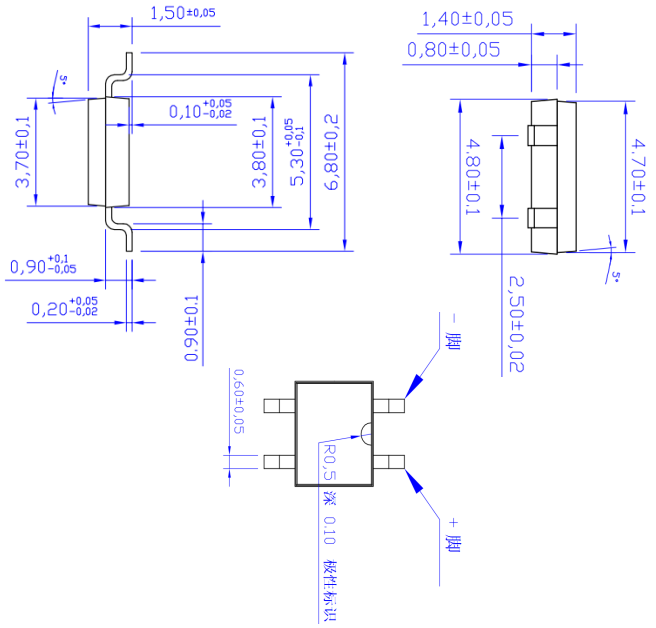
MB05F THRU MB10F

MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

MBF



Dimensions in inches and (millimeters)

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

FEATURES

- Surge overload rating: 25 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Low leakage
- Reliable low cost construction utilizing molded

MECHANICAL DATA

Case: Molded plastic, MBF
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
Mounting position: Any

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.

		MB05F	*MB1F*	*MB2F*	*MB4F*	*MB6F*	*MB8F*	*MB10F*	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)	$I_{(AV)}$	0.5							**Amp**
on aluminum substrate (Note 3)		0.8							
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	20 25							**Amp**
Maximum Forward Voltage at 0.4A DC and 25℃	V_F	1.0							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_A=125℃		100							
Typical Junction Capacitance (Note 1)	C_J	13							**pF**
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	60							**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	16							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							℃

NOTES:

1- Measured at 1 MH_Z 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

Characteristic Curves (TA=25 ℃ unless otherwise noted)

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR

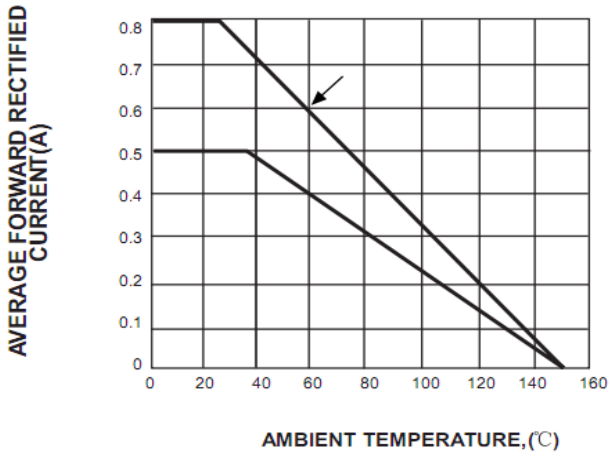


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

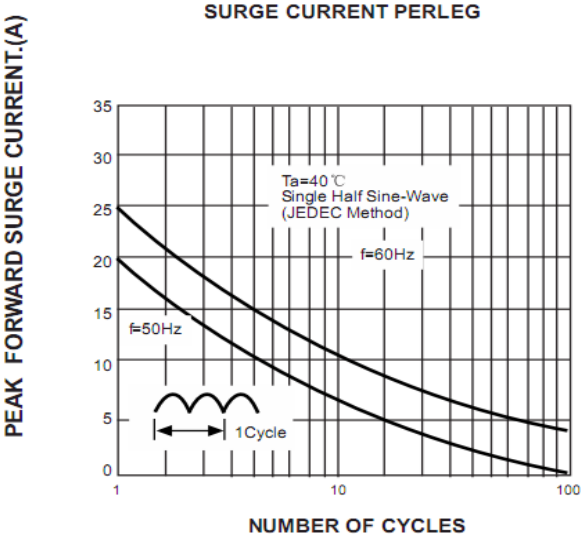


Fig.3 Typical Forward Voltage Characteristics Per Leg

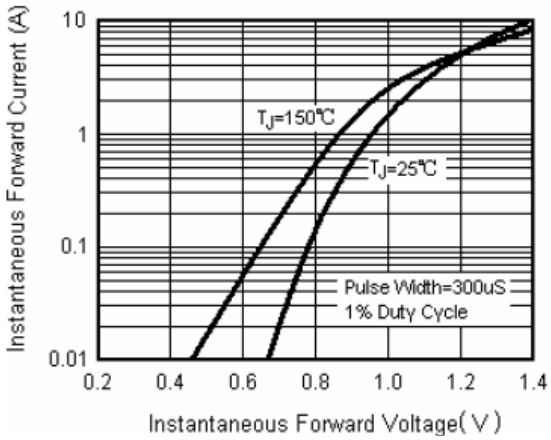


Fig.4 Typical Reverse Leakage Characteristics Per Leg

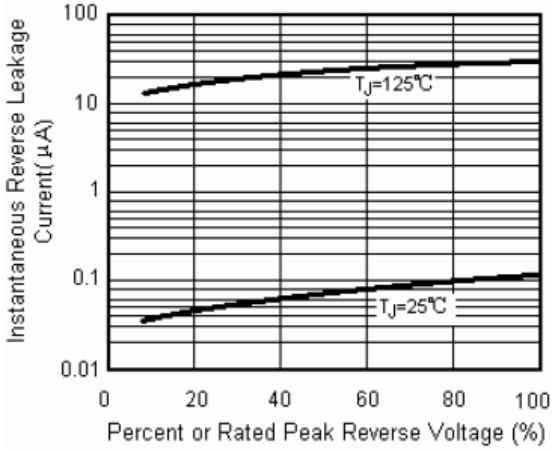


Fig.5 Typical Junction Capacitance Per Leg