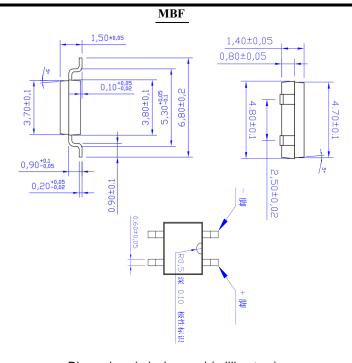


MB05F THRU MB10F

MINIATURE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER



Dimensions in inches and (millimeters)

REVERSE VOLTAGE: 50 to 1000 VOLTS FORWARD CURRENT: 0.8/1.1 AMPERE

FEATURES

- · Surge overload rating: 30 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°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, 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) 0.8 1.1								Amp
on aluminum substrate (Note 3)									
Peak Forward Surge Current,									
8.3ms single half-sine-wave	I_{FSM}	30 35							Amp
superimposed on rated load (JEDEC method)									
Maximum Forward Voltage	V 7	1.0							Volts
at 0.4A DC and 25 °C	V_{F}								
Maximum Reverse Current at T _A =25℃	I _R	5.0							4
at Rated DC Blocking Voltage $T_A=125$ °C					100				uAmp
Typical Junction Capacitance (Note 1)	C _J				13				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$				60				°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$				16				°C/W
Operating and Storage Temperature Range	T _J , Tstg	•			-55 to +15	0			င

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- On glass epoxy P.C.B. mounted on 0.05×0.05 " (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 \mathcal{C} unless otherwise noted)

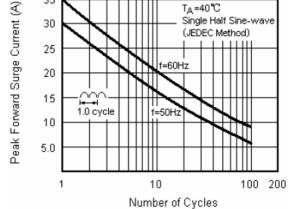
FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT FOR 1.0 0.9 0.8 0.7 Glass Epoxy P.C.B. 0.6 0.5 0.4

20

40 60

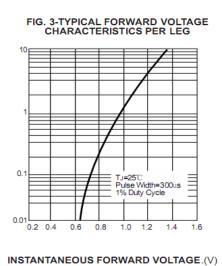
Surge Current Per Leg 35 TA=40℃ Single Half Sine-wave 30 (JEDEC Method)

Fig.2 Maximum Non-Repetitive Peak Forward





AVERAGE FORWARD RECTIFIED CURRENT(A)



100

AMBIENT TEMPERATURE, (°C)

80

140

120

160

Fig.4 Typical Reverse Leakage Characteristics Per Leg 100

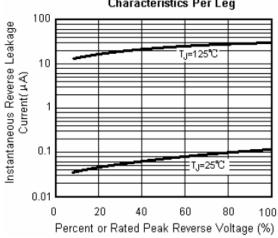


Fig.5 Typical Junction Capacitance Per Leg

