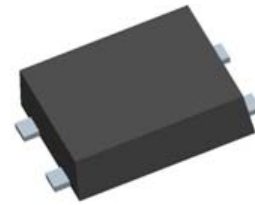




Features

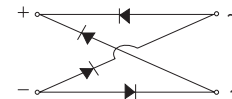
- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High temperature soldering:
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2011/65/EU and WEEE 2002/96/EC



MBF



RoHS
COMPLIANT



Mechanical Date

- **Case:**MBF
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Polarity symbols marked on body
- **Marking:** type number

Major Ratings and Characteristics

$I_{F(AV)}$	0.5A,0.8A
V_{RRM}	50V to 1000V
I_{FSM}	25A
I_R	5.0μA
V_F	1.0V
$T_{j,max.}$	150°C

Maximum Ratings & Thermal Characteristics (T_A = 25 °C unless otherwise noted)

Items	Symbol	MB 05F	MB 1F	MB 2F	MB 4F	MB 6F	MB 8F	MB 10F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS reverse 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 _A (see Fig1.) -on glass-epoxy P.C.B. ⁽¹⁾ -on aluminum substrate ⁽²⁾	$I_{F(AV)}$	0.5 0.8							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25							A
Thermal resistance from junction to ambient	$R_{\theta JA}^{(1)}$ $R_{\theta JA}^{(2)}$	85 70							°C/W
Thermal resistance from junction to lead	$R_{\theta JL}^{(1)}$	20							
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note: 1.On glass epoxy P.C.B. mounted on 0.05x0.05" (1.3mmx1.3mm) pads

2.On aluminum substrate P.C.B. with an area of 0.8x0.8"(20x20mm) mounted on 0.05x0.05"(1.3x1.3mm) solder pad



Electrical Characteristics ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	Unit
Instantaneous forward voltage per leg	$I_F=0.4\text{A}$ ⁽³⁾	V_F	-	0.93	1.0	V
Reverse current per leg	$V_R=V_{DC}$	I_R			5.0	μA
					100	

Characteristic Curves ($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

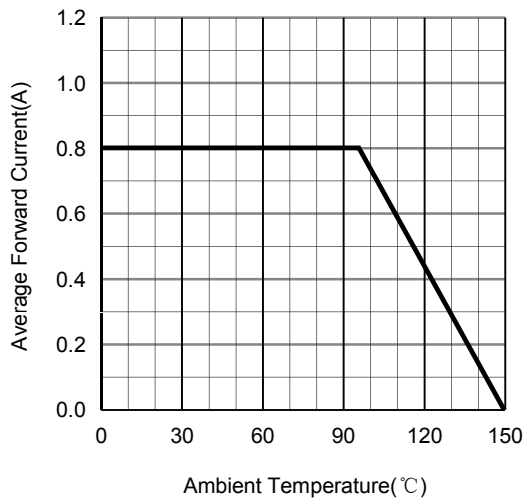


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

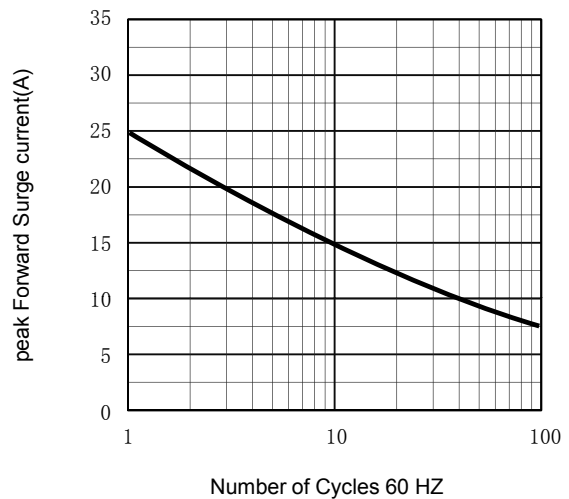


Fig.3 Typical Instantaneous Forward Characteristics

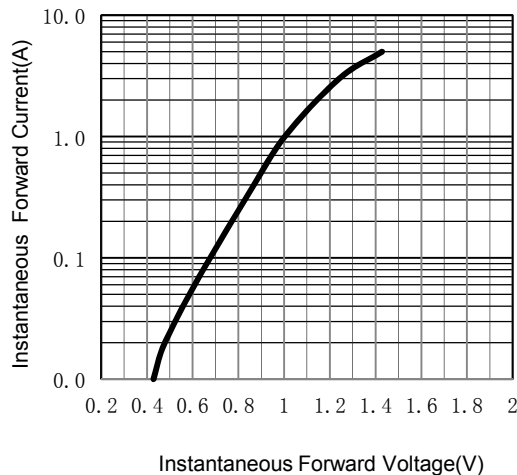
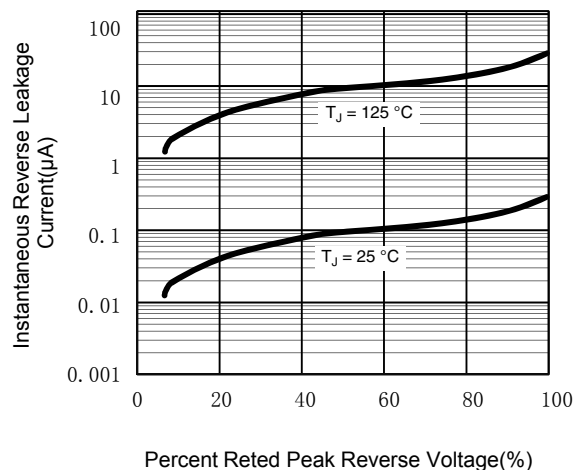


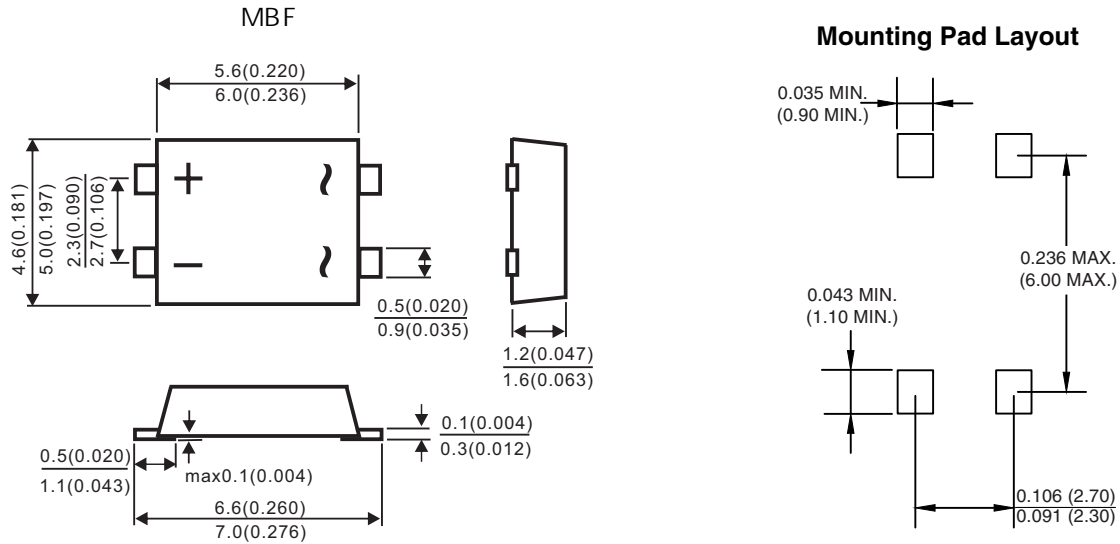
Fig.4 Typical Reverse Leakage Characteristics





MB05F thru MB10F Miniature glass passivated single-phase Surface mount flat bridge rectifier

Package Outline



Dimensions in millimeters and (inches)

Ordering Information

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameters (mm)
Taping	5,000	100,000	330/13"

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