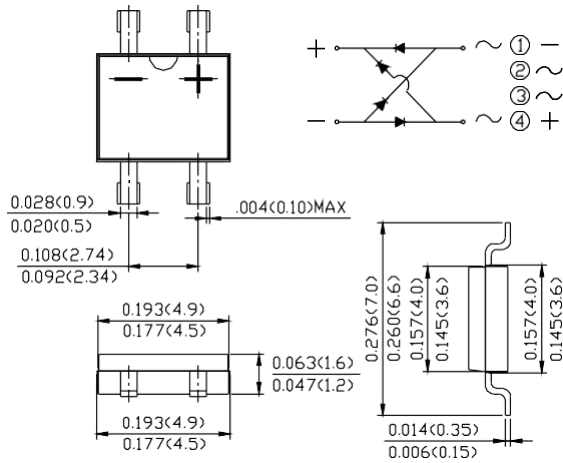


**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 0.5 AMPERE

**MBXF**



**Dimensions in inches and (millimeters)**

### 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, MBXF
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any
- Weight: 0.00528ounce, 0.134gram

## 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, derate current by 20%.

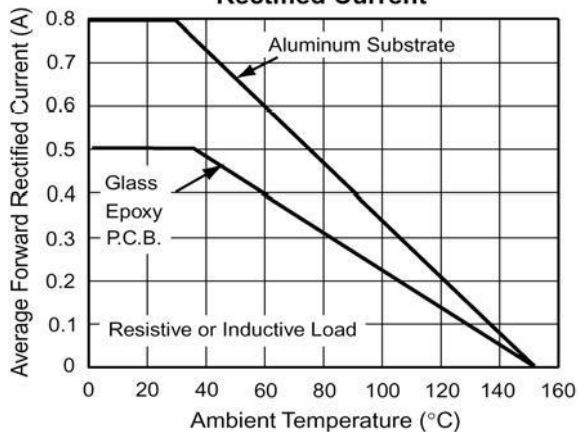
	Symbols	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
<b>Maximum Recurrent Peak Reverse Voltage</b>	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
<b>Maximum RMS Voltage</b>	$V_{RMS}$	35	70	140	280	420	560	700	Volts
<b>Maximum DC Blocking Voltage</b>	$V_{DC}$	50	100	200	400	600	800	1000	Volts
<b>Maximum Average Forward Rectified Current</b> (see Fig. 1) on glass-epoxy P.C.B (Note 2) on aluminum substrate (Note 3)	$I_{(AV)}$	0.5 0.8							Amp
<b>Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)</b>	$I_{FSM}$	30							Amp
<b>Maximum Forward Voltage at 0.4A DC and 25°C</b>	$V_F$	1.0							Volts
<b>Maximum Reverse Current at <math>T_A=25^\circ C</math> at Rated DC Blocking Voltage <math>T_A=125^\circ C</math></b>	$I_R$	5.0 500							uAmp
<b>Typical Junction Capacitance (Note 1)</b>	$C_J$	13							pF
<b>Typical Thermal Resistance (Note 3)</b>	$R_{\theta JA}$	60							°C/W
<b>Typical Thermal Resistance (Note 2)</b>	$R_{\theta JL}$	16							°C/W
<b>Operating and Storage Temperature Range</b>	$T_J, T_{stg}$	-55 to +150							°C

### NOTES:

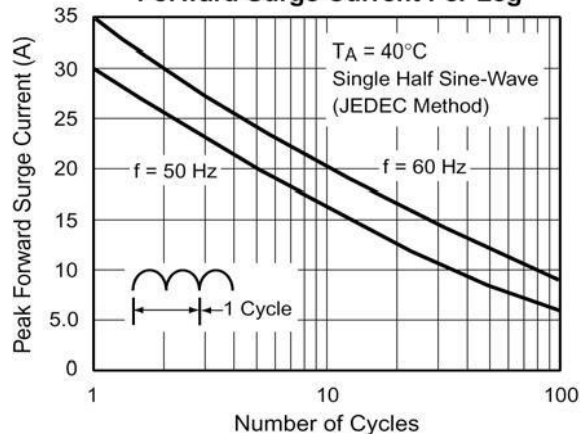
- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
- On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

### RATINGS AND CHARACTERISTIC CURVES

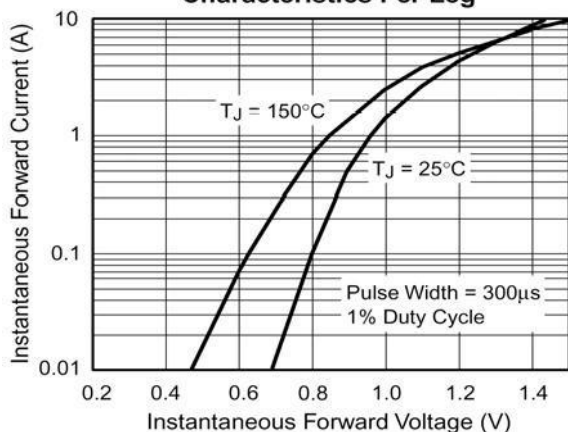
**Fig. 1 - Derating Curve for Output Rectified Current**



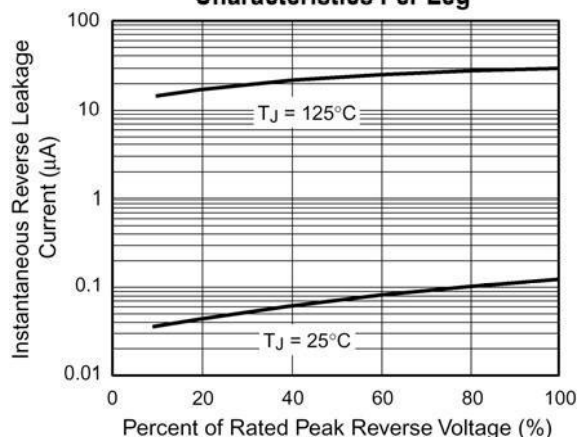
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg**



**Fig. 3 - Typical Forward Voltage Characteristics Per Leg**



**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**

