

<b>Single Phase Glass Passivated Bridge Rectifiers</b>	<b>Reverse Voltage: 50V to 1000V</b> <b>Forward Current: 1.0 Amp</b>
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**Features**

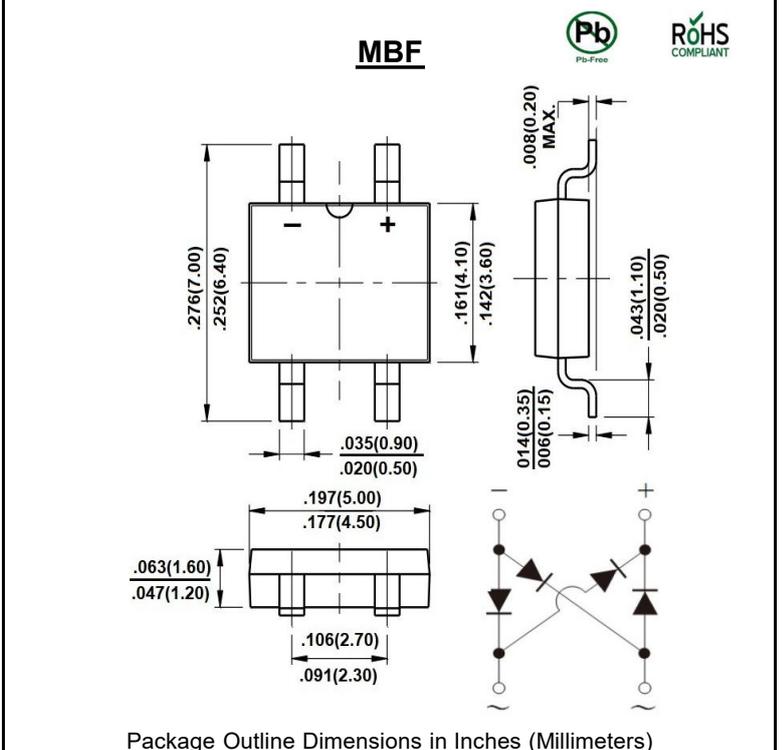
- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

**Mechanical Data**

- **Package:** MBF  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750, Method 2026
- **Polarity:** Symbol marking on body

**Typical Applications**

Suitable for AC to DC bridge full wave rectification for SMPS, LED lighting, adapter, battery charger, home appliances, office equipment, and telecommunication applications.



**Maximum Ratings and Electrical Characteristics** (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit
Device marking code		MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Rectified Current (see Fig. 1)	On glass-epoxy P.C.B (Note 1)	I <sub>O(AV)</sub>	0.8						A
	On aluminum substrate (Note 2)		1.0						
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	I <sub>FSM</sub>	30						A	
Operating junction range	T <sub>J</sub>	-55 to+150						°C	
Storage temperature range	T <sub>STG</sub>	-55 to+150						°C	

**Thermal Characteristics** (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit
Maximum Thermal Resistance per Leg, Junction To Lead (Note 1)	R <sub>θJL</sub>	16						°C/W	
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 2)	R <sub>θJA</sub>	60						°C/W	

**Electrical Characteristics** (Ta=25°C Unless otherwise specified)

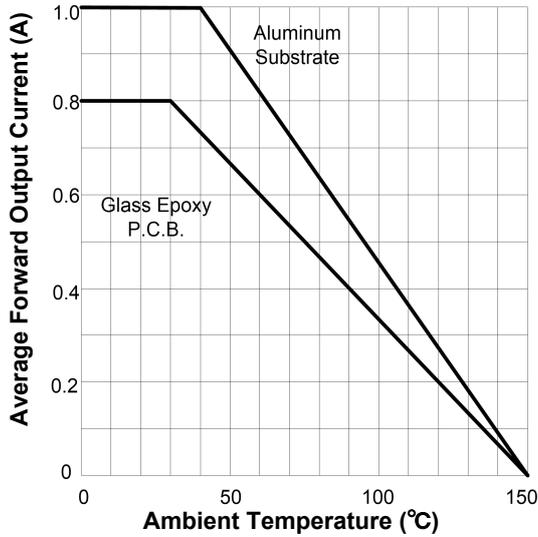
Parameter&Test Conditions	SYM.	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit
Maximum Instantaneous Forward Voltage per diode	IF= 0.8A	V <sub>FM</sub>	1.00						V
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25°C	I <sub>R</sub>	5						μA
	TA = 125°C		100						

Notes:

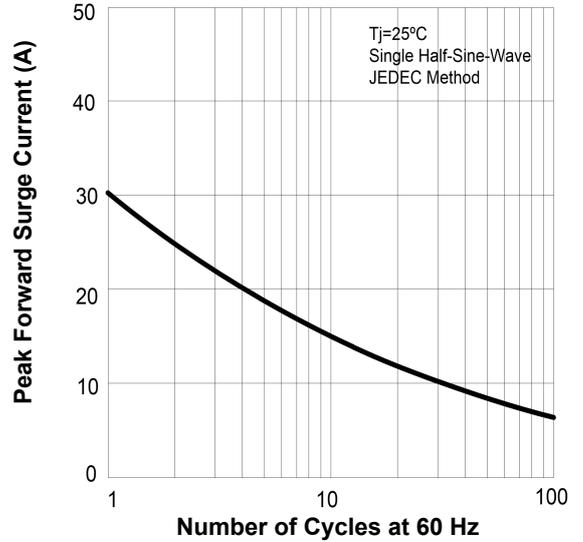
1. Units mounted on glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads.
2. Units mounted on aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad.

**Rating and Characteristic Curves**

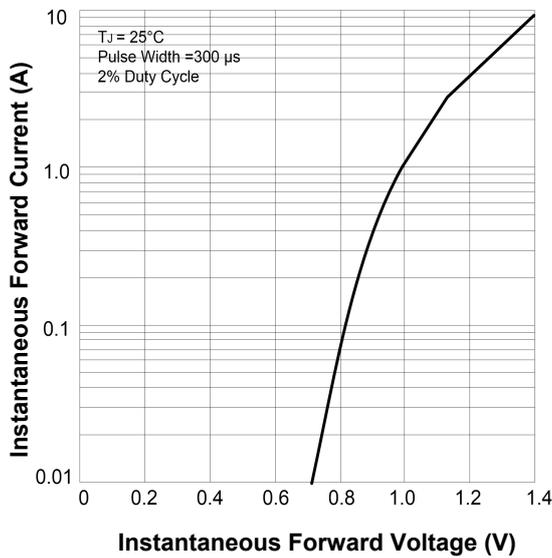
**FIG. 1- DERATING CURVE OUTPUT RECTIFIED**



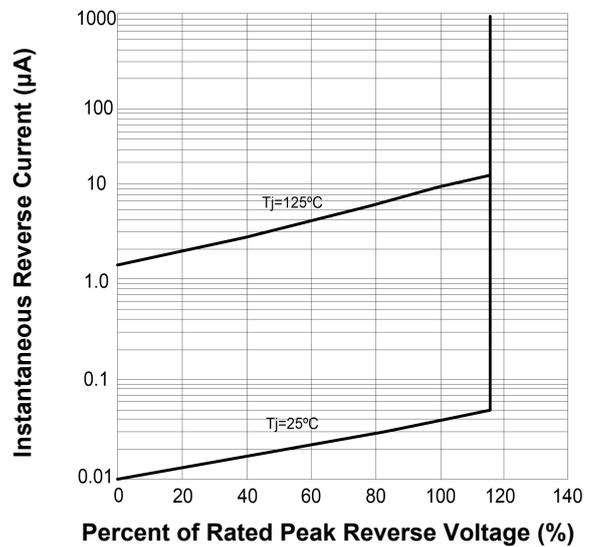
**FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode**



**FIG. 3- TYPICAL FORWARD VOLTAGE**

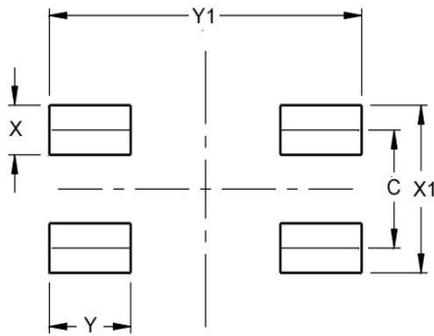


**FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



The curve above is for reference only.

**Recommended Pad Layout**



SYMBOL	Unit(mm)	Unit(inch)
C	2.5	0.098
X	1.2	0.047
X1	3.55	0.140
Y	1.88	0.074
Y1	7.2	0.283

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