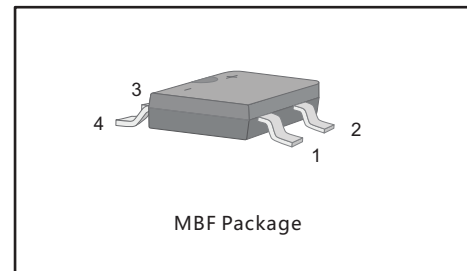


**0.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER**
**FEATURES:**

Glass Passivated Chip Junction  
 Reverse Voltage - 100 to 1000 V  
 Forward Current - 0.5 A  
 High Surge Current Capability  
 Designed for Surface Mount Application

**PINNING**

PIN	DESCRIPTION
1	Input Pin ( ~ )
2	Input Pin ( ~ )
3	Output Anode ( + )
4	Output Cathode ( - )


**MECHANICAL DATA**

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 75mg 0.0024oz

**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

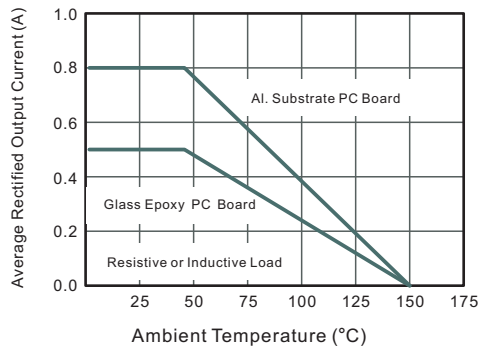
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB1F-05	MB2F-05	MB4F-05	MB6F-05	MB8F-05	MB10F-05	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Average Rectified Output Current at $T_a = 40\text{ }^\circ\text{C}$	$I_O$	0.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	20						A
Maximum Forward Voltage at 0.5 A	$V_F$	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 125\text{ }^\circ\text{C}$	$I_R$	5.0 100						$\mu\text{A}$
Typical Junction Capacitance ( Note1 )	$C_j$	13						pF
Typical Thermal Resistance ( Note2 )	$R_{\theta JA}$ $R_{\theta JL}$	60 16						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ\text{C}$

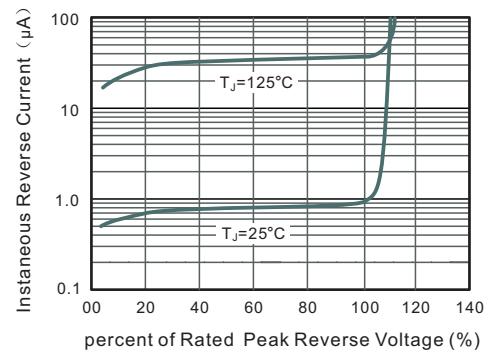
Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> copper pad.

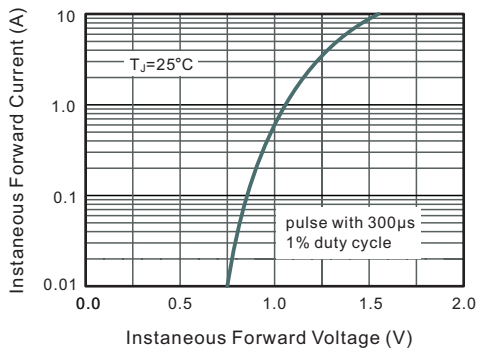
**Fig.1 Average Rectified Output Current Derating Curve**



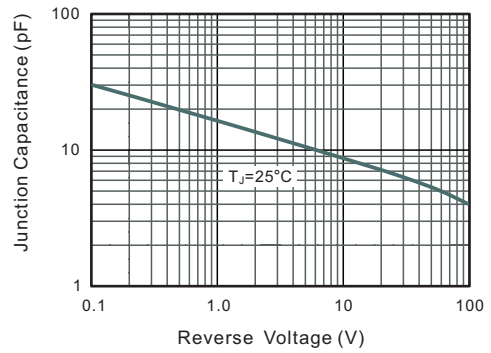
**Fig.2 Typical Reverse Characteristics**



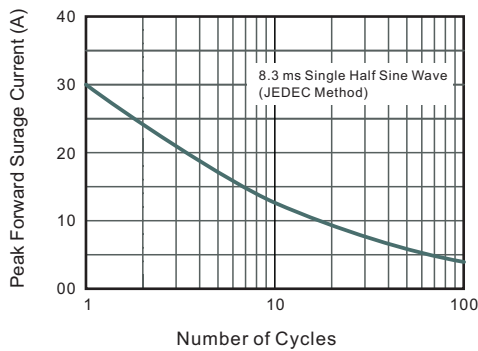
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



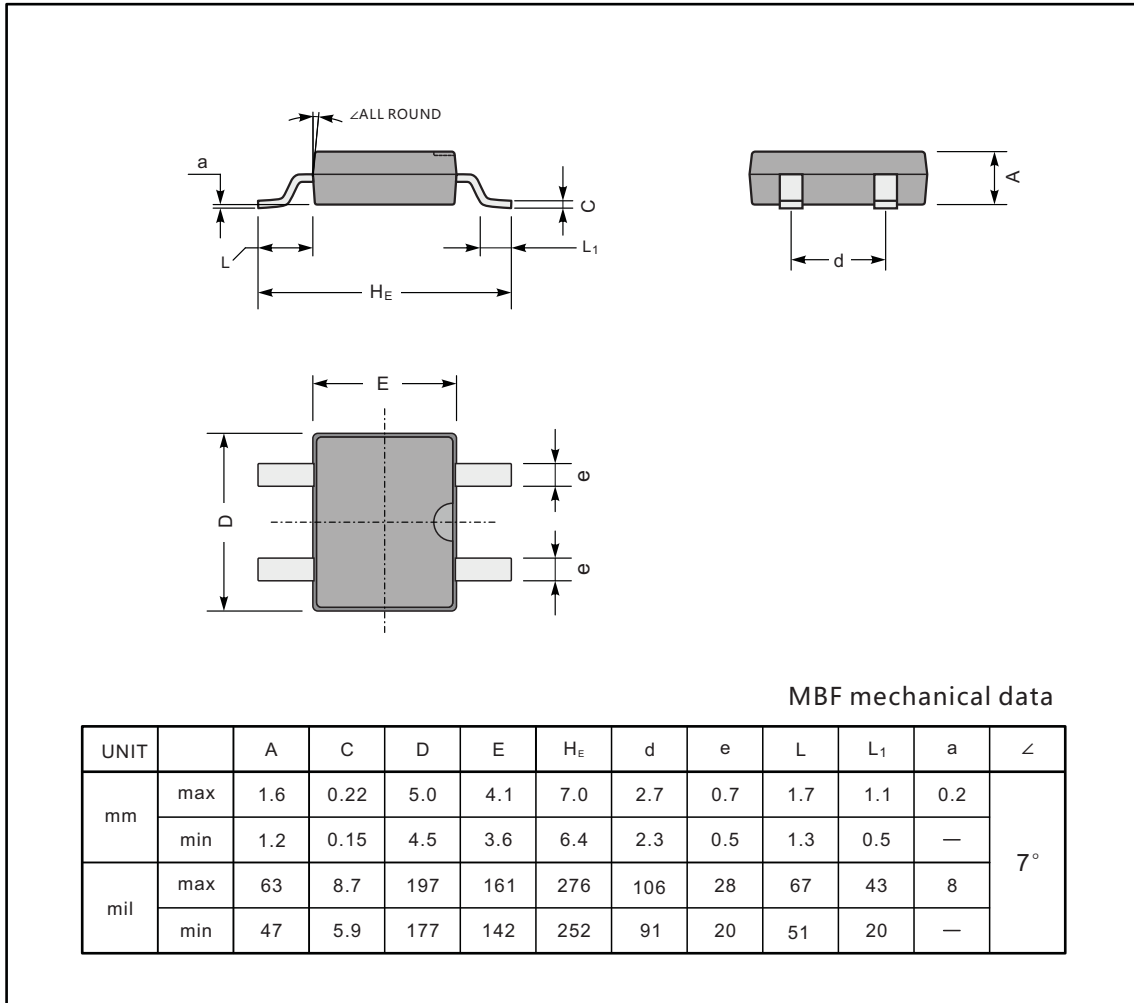
**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



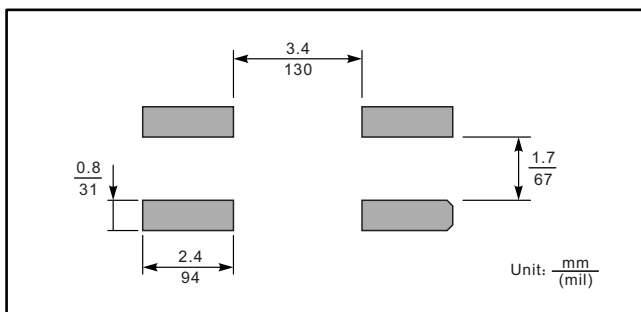
PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

MBF



The recommended mounting pad size



Marking

Type number	Marking code
MB1F-05	05M1
MB2F-05	05M2
MB4F-05	05M4
MB6F-05	05M6
MB8F-05	05M8
MB10F-05	05M10

