

# MB1F THRU MB10F

**Surface Mount Glass Passivated Bridge Rectifier**  
**Reverse Voltage - 100 to 1000 V**  
**Forward Current - 1 A**

## Features

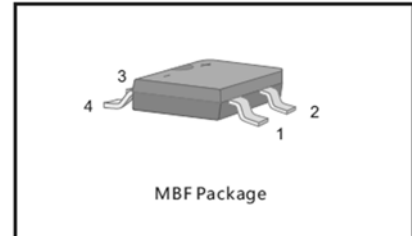
- Glass passivated chip junction
- Hight Surge Current Capability
- Designed for Surface Mount Application

## Mechanical Data

- Case: Molded plastic, MBF
- Terminals: solderable per MIL-STD-750, Method 2026

## PINNING

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



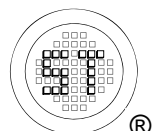
## Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
Maximum Recurrent 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 $T_a = 125^\circ\text{C}$	$I_{F(AV)}$	1						A
Peak Forward Surge Current 8.3 ms Single Half-sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	35						A
Maximum Forward Voltage at 1 A	$V_F$	1.1						V
Maximum DC Reverse Current at $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_a = 125^\circ\text{C}$	$I_R$	5 40						$\mu\text{A}$
Typical Junction Capacitance <sup>1)</sup>	$C_J$	13						pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	80 25						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	- 55 to + 150						$^\circ\text{C}$

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 V D.C.

<sup>2)</sup> Mounted on glass epoxy PC board with 4×1.5"×1.5" ( 3.81×3.81 cm ) copper pad.



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## Electrical Characteristics Curves

Fig.1 Average Rectified Output Current Derating Curve

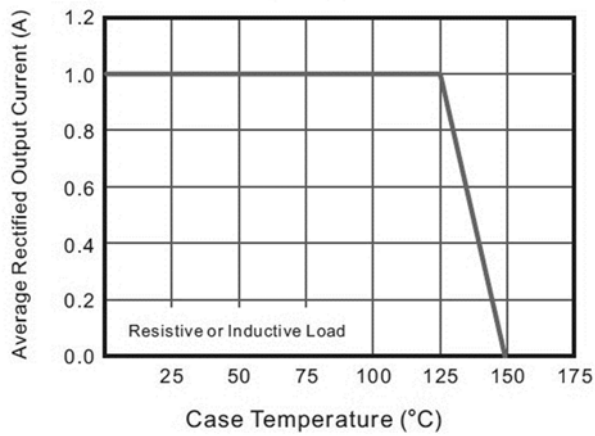


Fig.2 Typical Reverse Characteristics

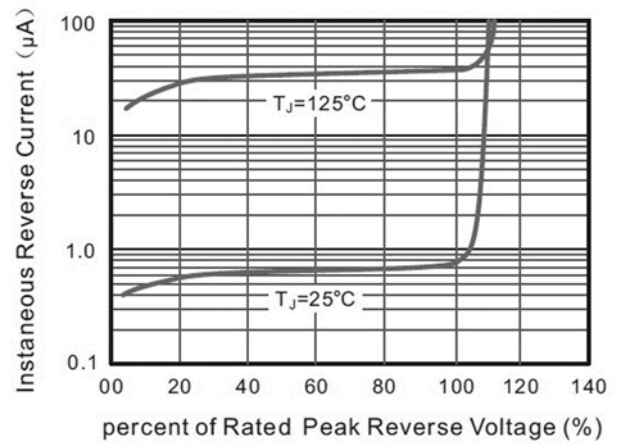


Fig.3 Typical Instantaneous Forward Characteristics

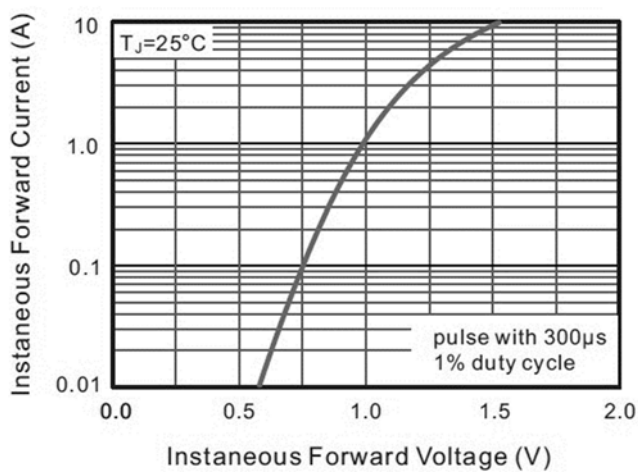


Fig.4 Typical Junction Capacitance

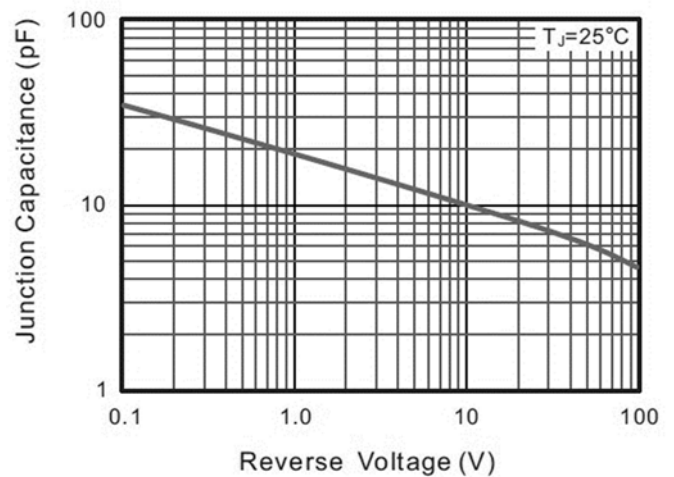
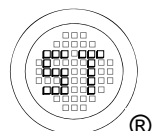
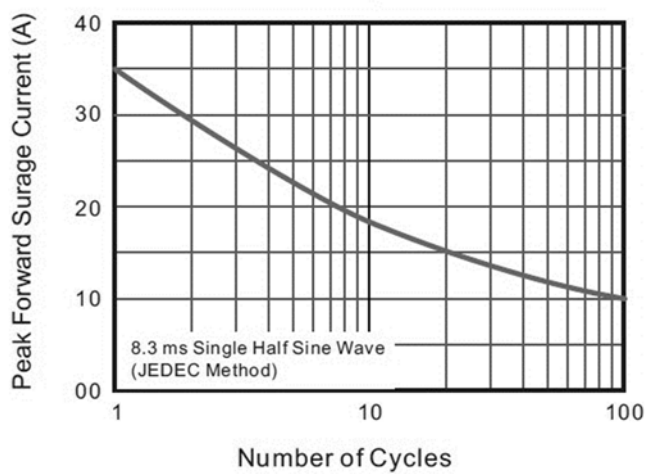


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

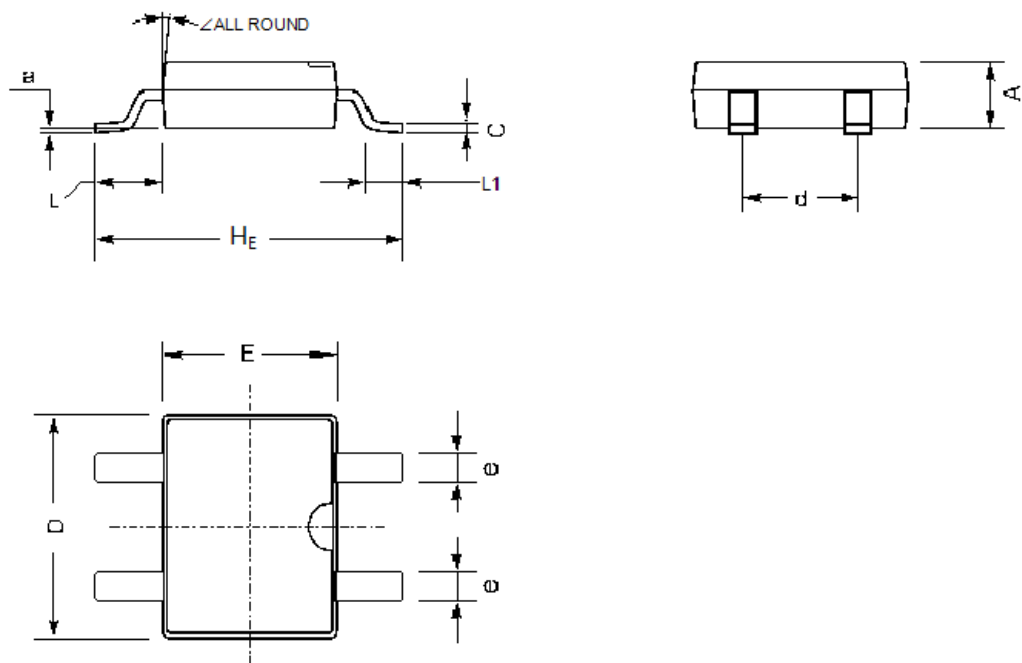


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PACKAGE OUTLINE

MBF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	HE	d	e	L	L1	a	$\angle$
mm	1.6	0.22	5	4.1	7	2.7	0.8	1.7	1.1	0.2	7°
	1.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	0	

Recommended Soldering Footprint

