



## DESCRIPTION

The MB1F~MB10F are available in MBF package

## FEATURES

- Glass Passivated Chip Junction
- Reverse Voltage - 50 to 1000 V
- Forward Current - 0.8 A
- High Surge Current Capability
- Designed for Surface Mount Application
- Available in MBF package

## ORDERING INFORMATION

Package Type	Part Number
MBF	MB1F
	MB2F
	MB4F
	MB6F
	MB8F
	MB10F
Note	SPQ: 5,000pcs/Reel
AiT provides all RoHS Compliant Products	

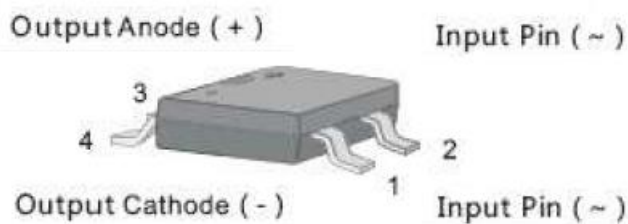
## MECHANICAL DATA

Case: MBF

Terminals: Solderable per MIL-STD-750,  
Method 2026

Approx. Weight: 75mg 0.0024oz

## PIN DESCRIPTION





## 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	Symbol	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit
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 $T_A=40^\circ\text{C}$	$I_o$	0.8						A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	25						A
Forward Voltage per element	$I_F=0.4\text{A}$ $I_F=0.8\text{A}$	$V_F$	1.0 1.1				V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0 100 500				$\mu\text{A}$	
Typical Junction Capacitance <sup>NOTE1</sup>	$C_j$	13				pF		
Typical Thermal Resistance <sup>NOTE2</sup>	$R_{\theta JA}$ $R_{\theta JL}$	60 16				$^\circ\text{C/W}$		
Operating and Storage Temperature Range	$T_J$ , $T_{STG}$	-55 ~+150				$^\circ\text{C}$		

NOTE1: Measured at 1MHz and applied reverse voltage of 4 V D.C.

NOTE2: Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> copper pad.



## TYPICAL CHARACTERISTICS

Figure. 1 Average Rectified Output Current Derating Curve

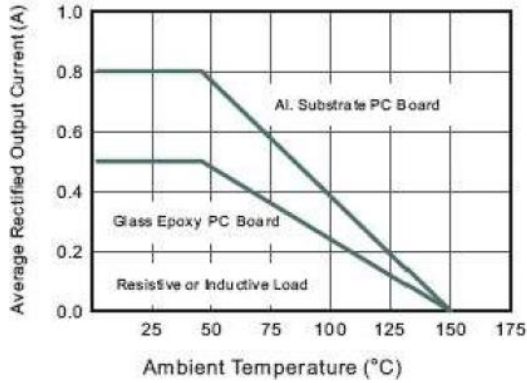


Figure. 2 Typical Reverse Characteristics

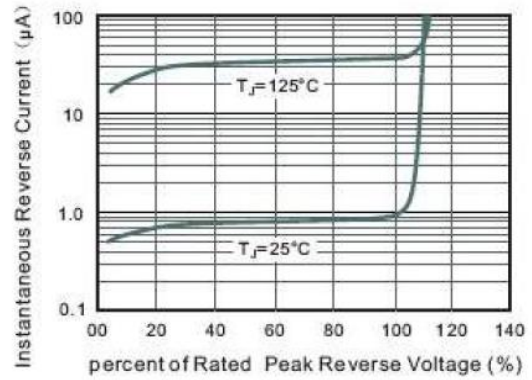


Figure. 3 Typical Instantaneous Forward Characteristics

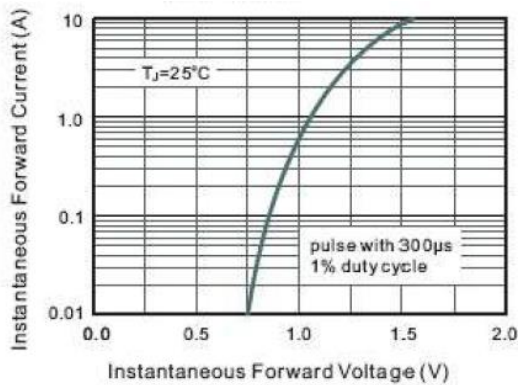


Figure. 4 Typical Junction Capacitance

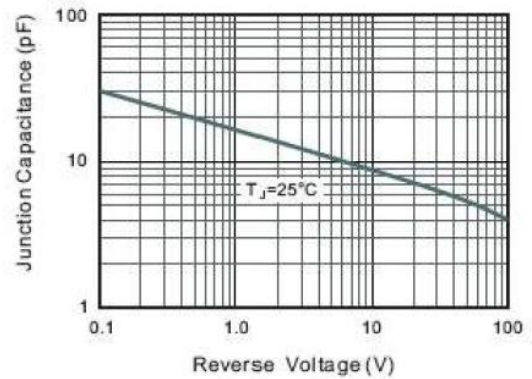
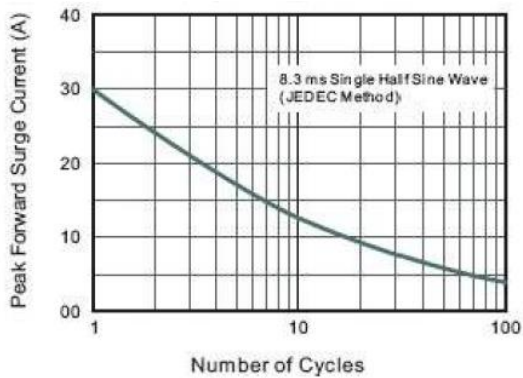


Figure. 5 Maximum Non-Repetitive Peak Forward Surge Current

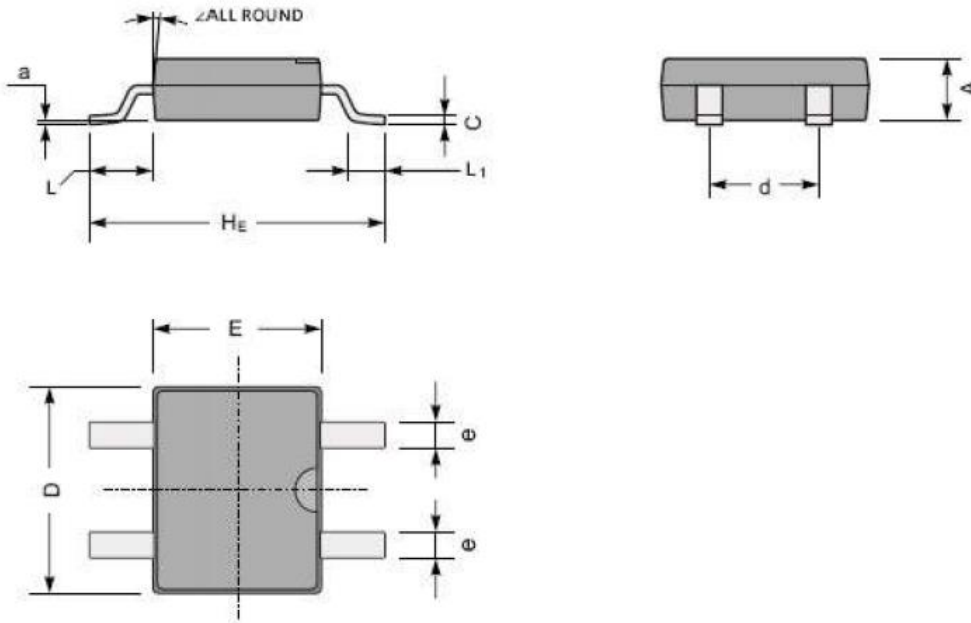




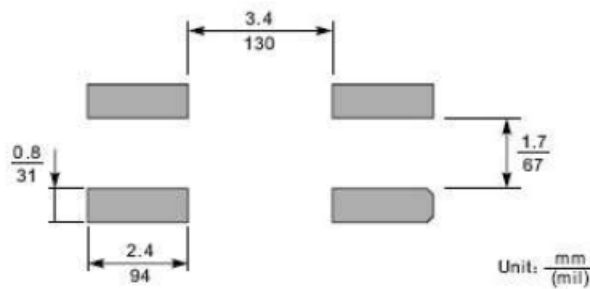
**PACKAGE INFORMATION**

Dimension in MBF (Unit: mm)

Plastic surface mounted package; 4 leads



The recommended mounting pad size



UNIT		A	C	D	E	HE	d	e	L	L1	a	∠
mm	Max	1.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	Min	1.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	-	
mil	Max	63	8.7	197	161	276	106	28	67	43	8	
	Min	47	5.9	177	142	252	91	20	51	20	-	



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