

RoHS Compliant Product  
 A suffix of "-C" specifies halogen & lead-free

**FEATURES**

- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

**MECHANICAL DATA**

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Mounting position: Any

**MARKING**

12M10

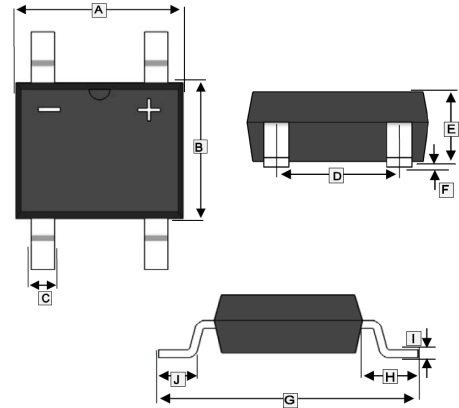
**PACKAGE INFORMATION**

Package	MPQ	Leader Size
MBF	5K	13 inch

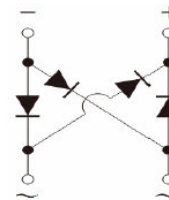
**ORDER INFORMATION**

Part Number	Type
MB121F-C~MB1210F-C	Lead (Pb)-free and Halogen-free

**MBF**



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.5	5.0	F	0.2 TYP.	
B	3.6	4.1	G	6.4	7.0
C	0.5	0.8	H	1.3	1.7
D	2.3	2.7	I	0.15	0.22
E	1.2	1.6	J	0.5	1.1



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
 For capacitive load, de-rate current by 20%.)

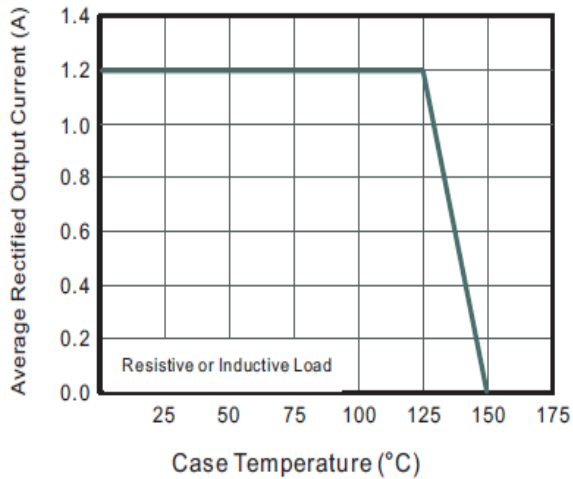
Parameter	Symbol	Part Number						Unit
		MB 121F-C	MB 122F-C	MB 124F-C	MB 126F-C	MB 128F-C	MB 1210F-C	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	
Maximum Average Forward Current	$I_{F(AV)}$	1.2						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40						A
Maximum Instantaneous Forward Voltage @ $I_F=1.2A$	$V_F$	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ C$	5						$\mu A$
	$T_A=125^\circ C$	80						
Typical Junction Capacitance <sup>1</sup>	$C_J$	18						pF
Thermal Resistance Junction-Ambient <sup>2</sup>	$R_{\theta JA}$	75						$^\circ C/W$
Thermal Resistance Junction-Case <sup>2</sup>	$R_{\theta JC}$	22						
Operating & Storage Temperature Range	$T_J, T_{STG}$	-55~150						$^\circ C$

Notes:

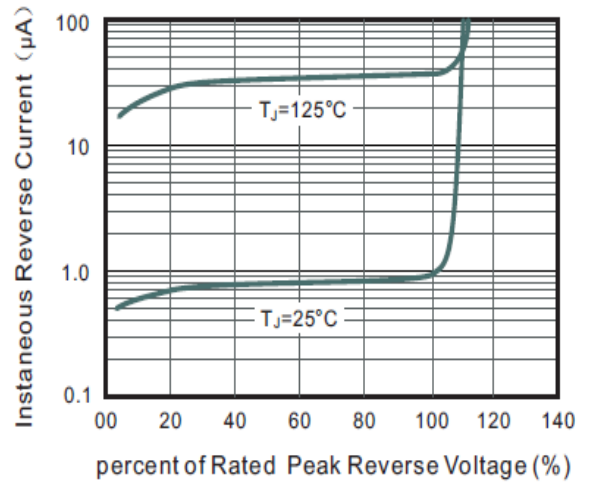
1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. The device is mounted on a glass epoxy PC board with a 4 x 1.5" x 1.5" (3.81 x 3.81cm) copper pad.

**RATINGS AND CHARACTERISTIC CURVES**

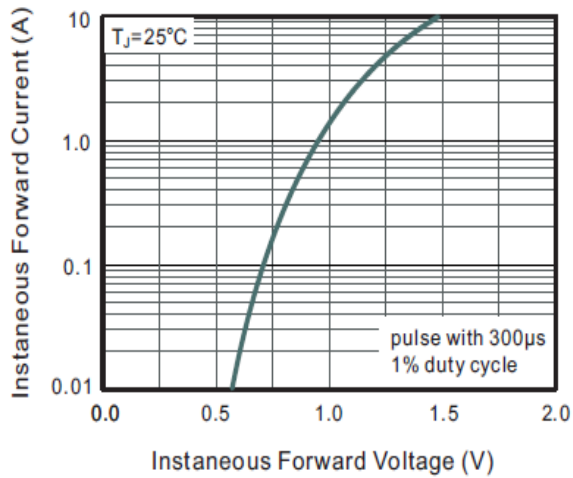
**Fig.1 Average Rectified Output Current Derating Curve**



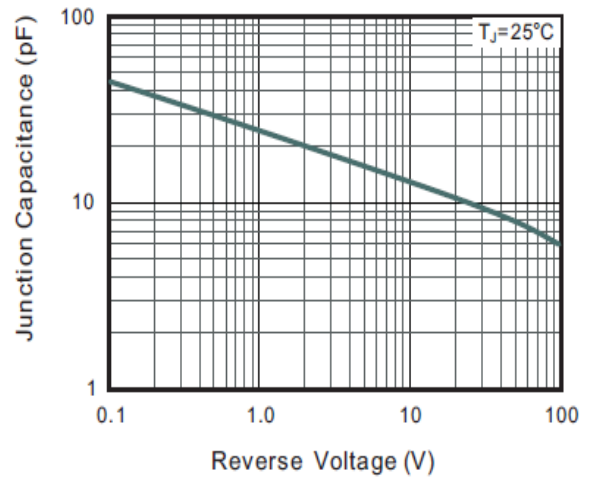
**Fig.2 Typical Reverse Characteristics**



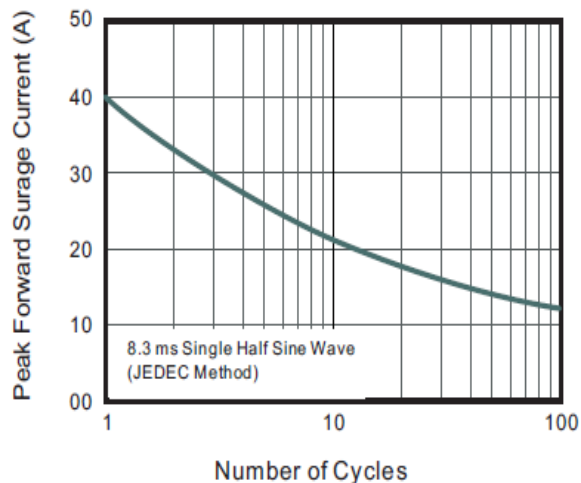
**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Junction Capacitance**



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



**Fig.6 Mounting Pad Layout**

