Elektronische Bauelemente

MB101F ~ MB110F

100V ~ 1000V, 1A

Surface Mount Bridge Rectifiers

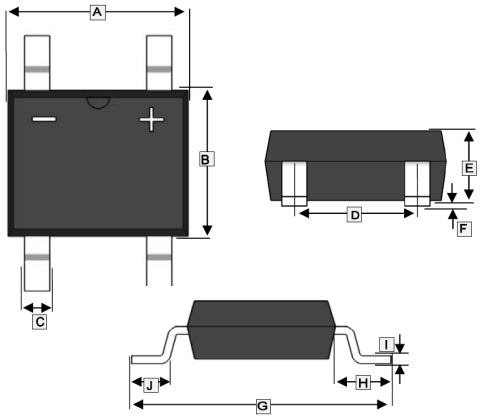
RoHS Compliant Product

A suffix of “-C” specifies halogen & lead-free

FEATURES

- High surge current capability
- Saves space on printed circuit boards
- Glass passivated structure

MBF



	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	0.7	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

MECHANICAL DATA

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

PACKAGE INFORMATION

Package	MPQ	Leader Size
MBF	5K	13 inch

MARKING

Part Number	Marking	Part Number	Marking
MB101F	10M1	MB106F	10M6
MB102F	10M2	MB108F	10M8
MB104F	10M4	MB110F	10M10

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Part Number						Unit
		MB 101F	MB 102F	MB 104F	MB 106F	MB 108F	MB 110F	
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
Maximum Average Forward Current	$I_{F(AV)}$	1						A
Peak Forward Surge Current@ 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	35						A
Current Square Time@ 1ms≦t＜8.3ms, T_J=25℃, Rating of per diode	I^2t	5.08						A^2s
Maximum Instantaneous Forward Voltage@ I_F=1A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=25℃	I_R	5						μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=125℃	I_R	40						μA
Typical Junction Capacitance [1]	C_J	13						pF
Thermal Resistance Junction to Ambient [2]	$R_{\theta JA}$	85						℃/W
Thermal Resistance Junction to Lead [2]	$R_{\theta JL}$	30						℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55~150						℃

Notes:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. The device is mounted on a glass epoxy PC board with a 4× (5×5mm^2) copper pad.

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

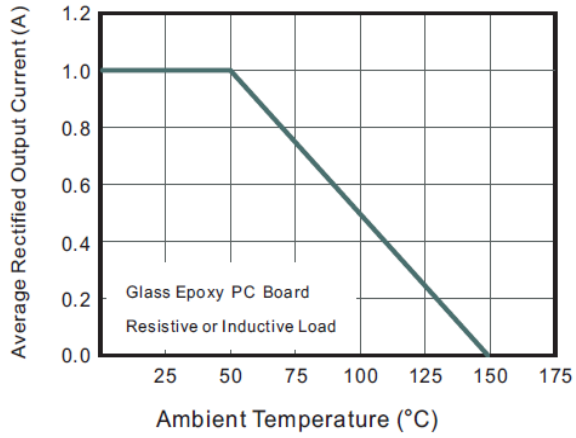


Fig.2 Typical Reverse Characteristics

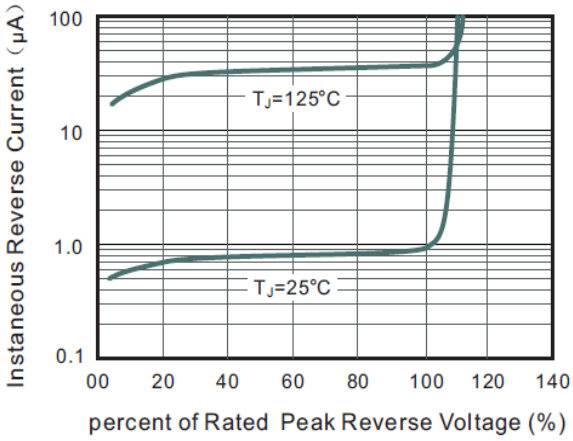


Fig.3 Typical Instaneous Forward Characteristics

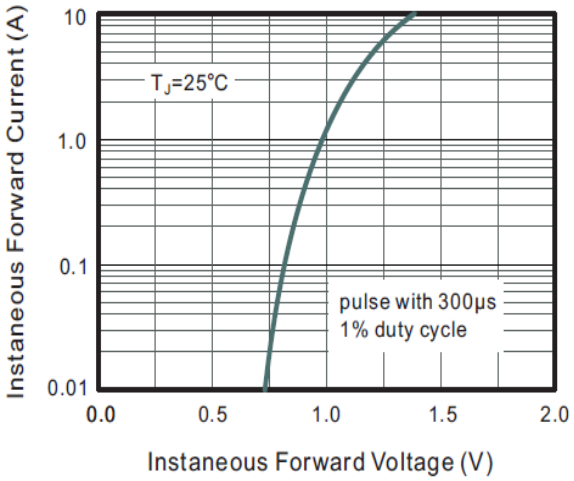


Fig.4 Typical Junction Capacitance

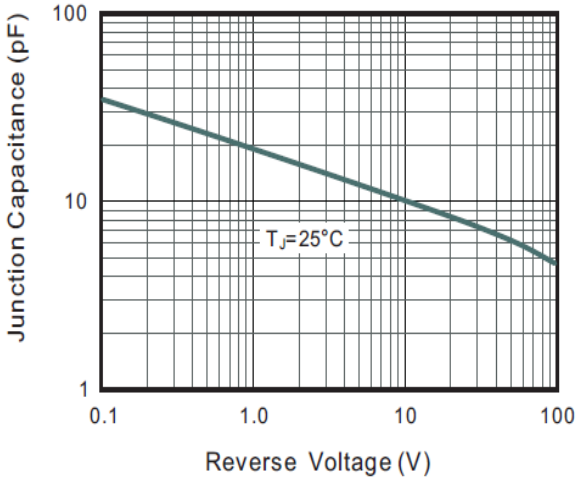


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current