MB14F THRU MB120F

Surface Mount Schottky Bridge Rectifier
Reverse Voltage - 40 to 200 V
Forward Current - 1 A

PINNING

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

MBF Package

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

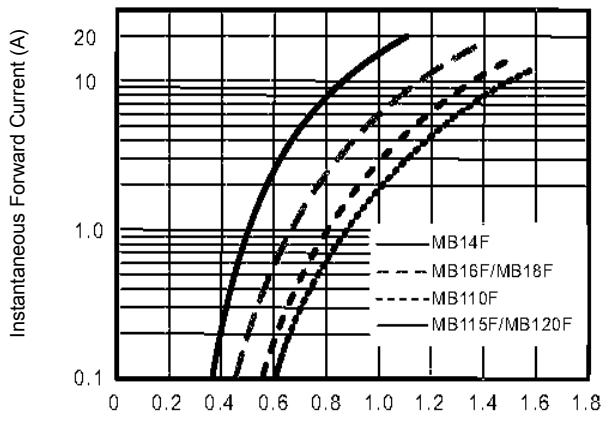
Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	MB14F	MB16F	MB18F	MB110F	MB115F	MB120F	Units
	Marking	MB14F	MB16F	MB18F	MB110F	MB115F	MB120F	-
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	150	200	V
Average Rectified Output 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}	40			30			A
Maximum Forward Voltage at 1 A	V_F	0.5	0.7		0.85	0.9		V
Maximum DC Reverse Current at Rated DC at T_a = 25℃ Blocking Voltage DC Blocking Voltage at T_a = 100℃	I_R	0.3 10			0.2 5	0.1 2		mA
Typical Junction Capacitance [1]	C_J	110	80					pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	115						°C/W
Junction Temperature	T_j	- 55 to + 125						℃
Storage Temperature Range	T_{stg}	- 55 to + 150						℃

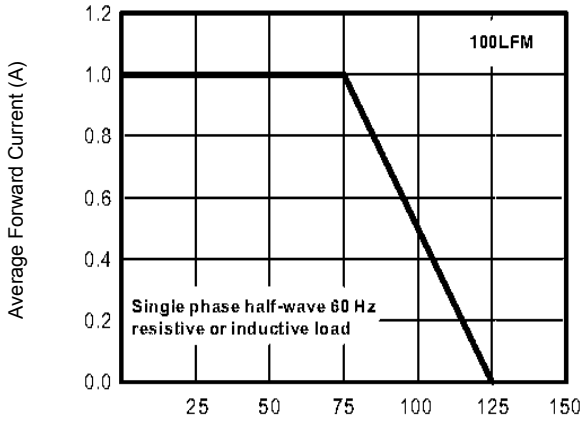
[1] Measured at 1MHz and applied reverse voltage of 4 V D.C.

[2] Mounted on glass epoxy PC board with 4 X (5 X 5 mm^2) copper pad.



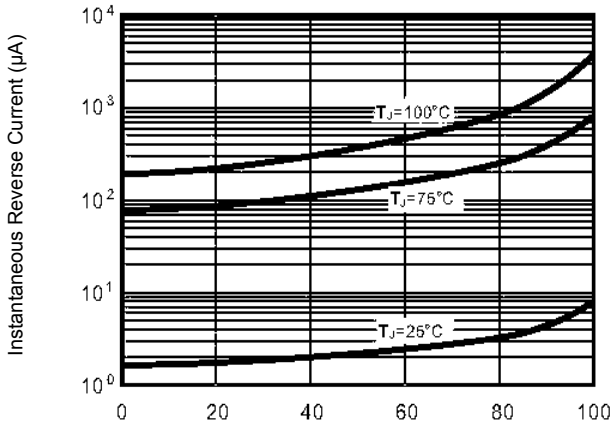
Instantaneous Forward Voltage (V)

Figure 1. Typical Forward Characteristics



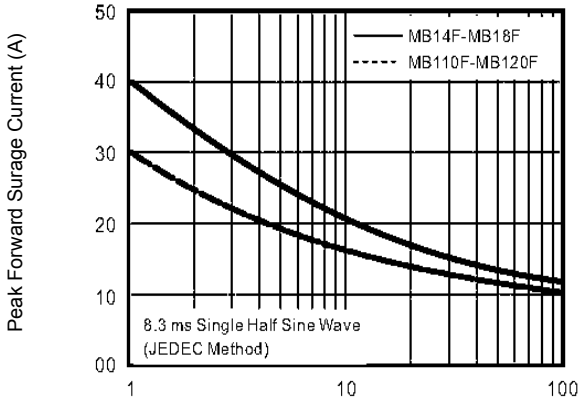
Ambient Temperature (℃)

Figure 2. Forward Current Derating Curve



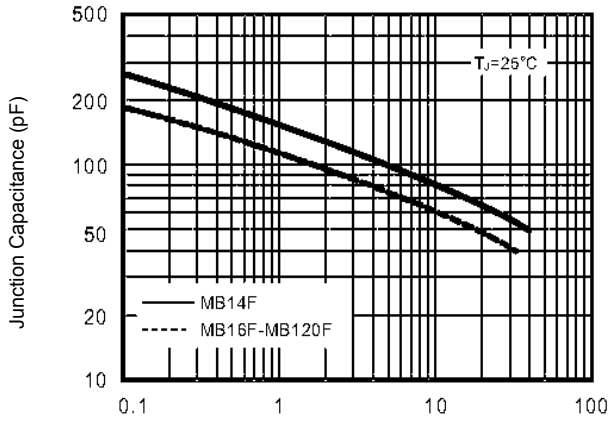
Percent of Rated Peak Reverse Voltage (%)

Figure 3. Typical Reverse Characteristics



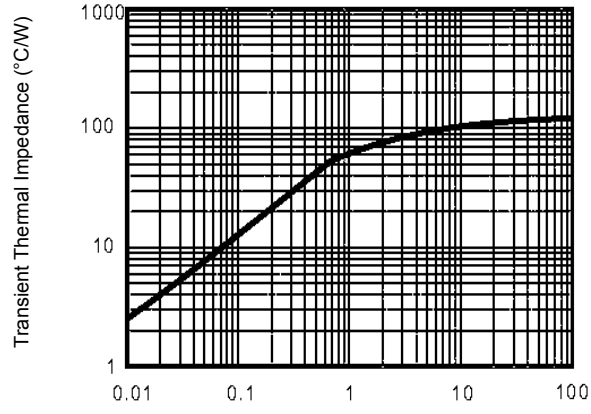
Number of Cycles at 60Hz

Figure 4. Maximum Non-Repetitive Peak Forward Surage Current



Reverse Voltage (V)

Figure 5. Typical Junction Capacitance

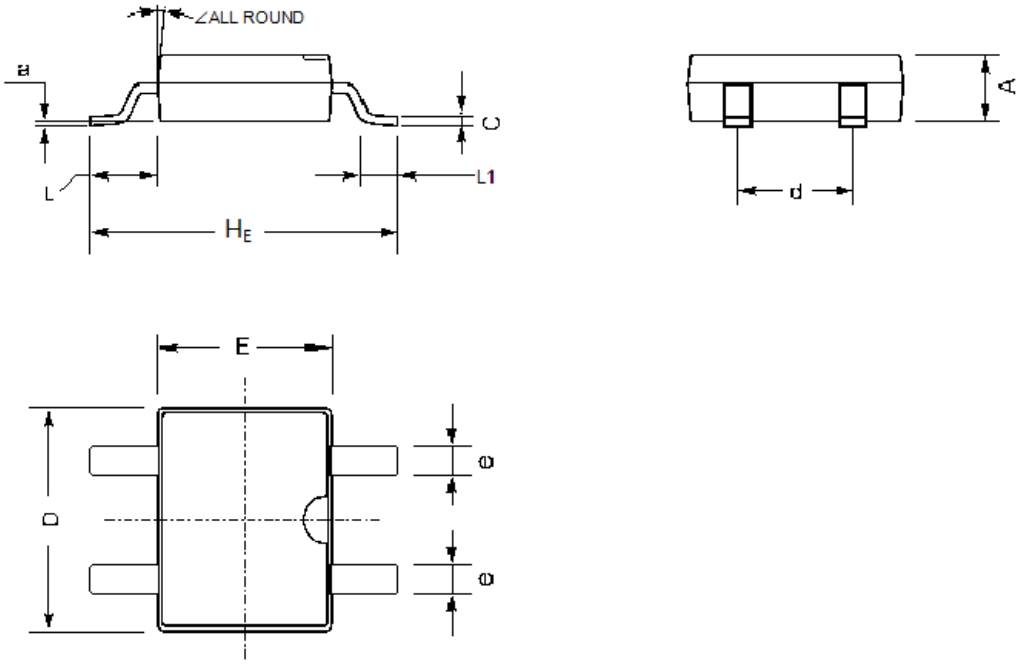


T, Pulse Duration (SEC)

Figure 6. Typical Transient Thermal Impedance

PACKAGE OUTLINE MBF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	H_E	d	e	L	L1	a	∠
mm	1.6	0.22	5	4.1	7	2.7	0.7	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