



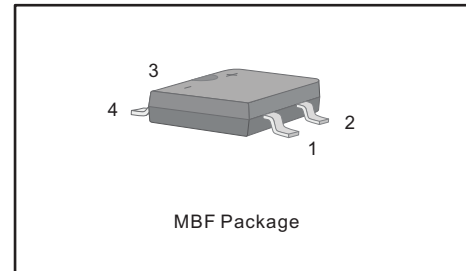
1A SURFACE MOUNT SCHOTTKY BRIDGE

**FEATURES:**

- Reverse Voltage - 40 to 200 V
- Forward Current - 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

**PINNING**

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



**MECHANICAL DATA**

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 75mg 0.0024oz

**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	Symbols	MB14F	MB16F	MB18F	MB110F	MB115F	MB120F	Units
Maximum Repetitive 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
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	40		30			A	
Max Instantaneous Forward Voltage at 1 A	$V_F$	0.55	0.70	0.85		0.90		V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$	$I_R$	0.3 10		0.2 5		0.1 2		mA
Typical Junction Capacitance <sup>1)</sup>	$C_j$	110	80				pF	
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	100						$^{\circ}C/W$
Operating Junction Temperature Range	$T_j$	-55 ~ +150						$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 ~ +150						$^{\circ}C$

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

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



Fig.1 Forward Current Derating Curve

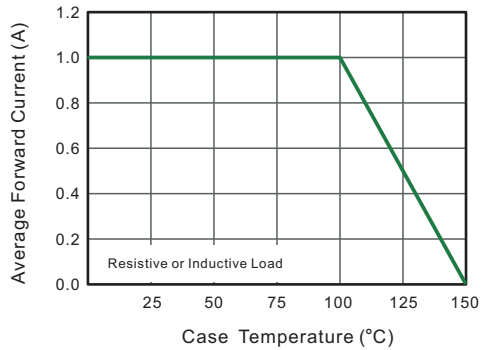


Fig.2 Typical Reverse Characteristics

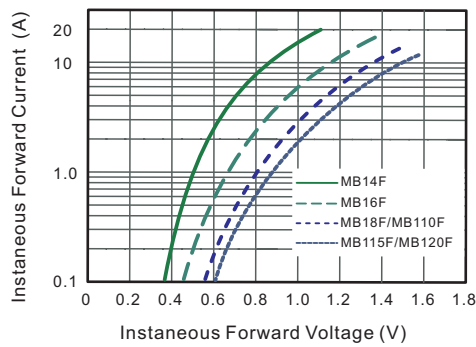
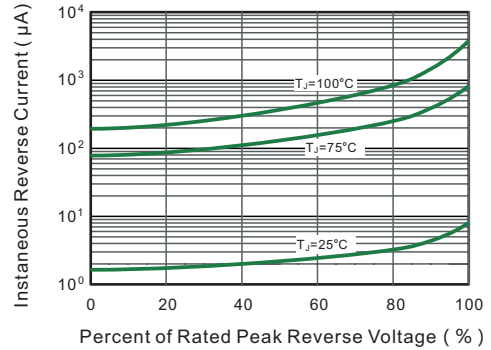


Fig.4 Typical Junction Capacitance

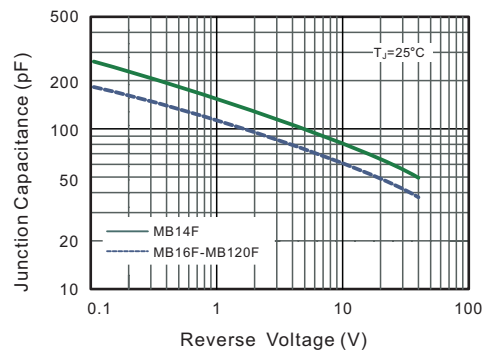


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

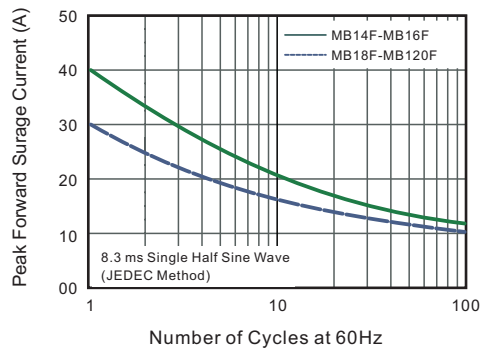
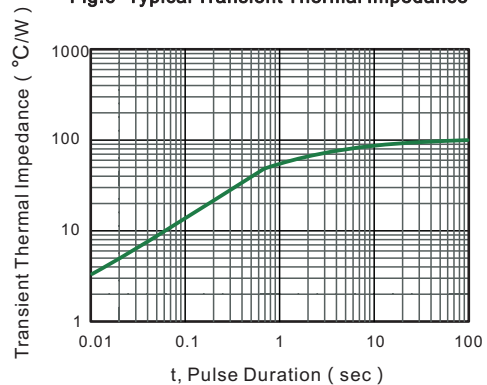


Fig.6- Typical Transient Thermal Impedance

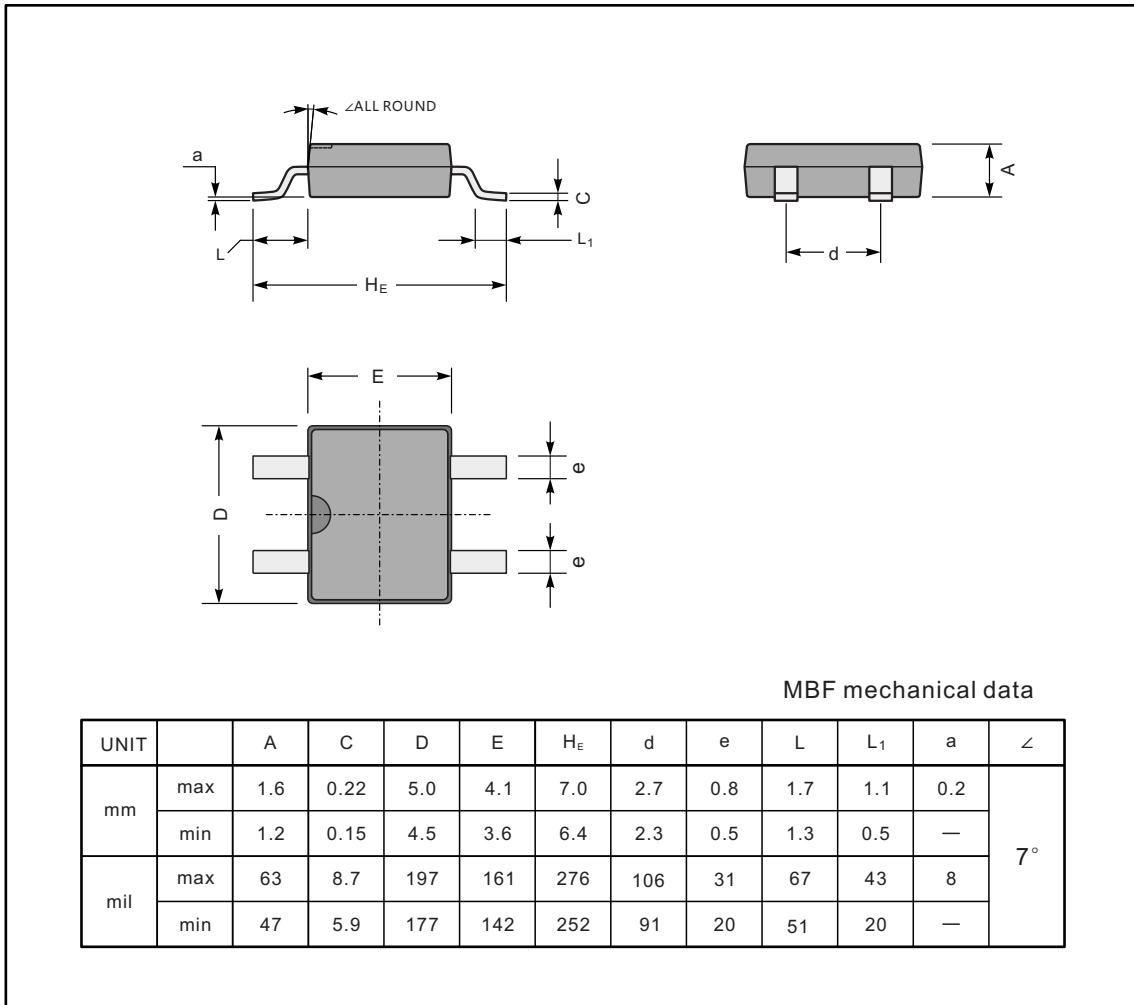




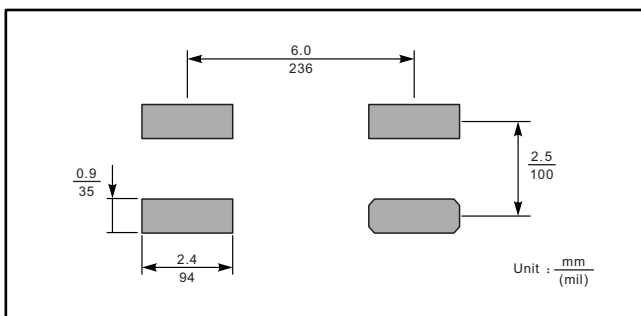
**PACKAGE OUTLINE**

Plastic surface mounted package; 4 leads

**MBF**



**The recommended mounting pad size**



**Marking**

Type number	Marking code
MB14F	MB14F
MB16F	MB16F
MB18F	MB18F
MB110F	MB110F
MB115F	MB115F
MB120F	MB120F