

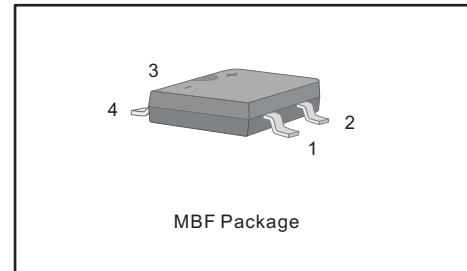
1A SURFACE MOUNT SCHOTTKY BRIDGE

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°C at Rated DC Reverse Voltage T _a =100°C	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 _{θJA}	100						°C/W
Operating Junction Temperature Range	T _j	-55 ~ +125						°C
Storage Temperature Range	T _{stg}	-55 ~ +150						°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

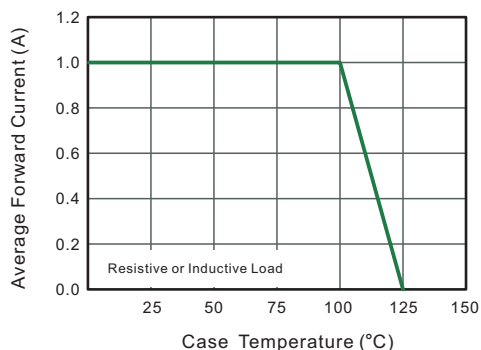


Fig.2 Typical Reverse Characteristics

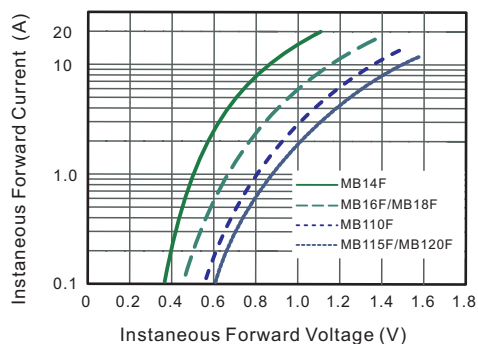
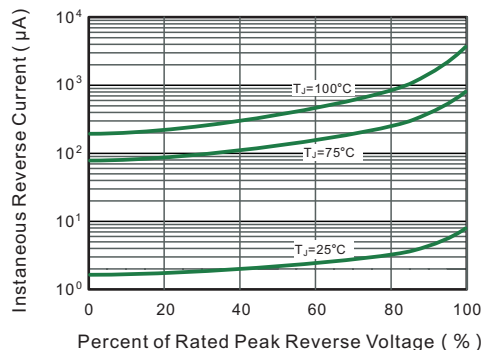


Fig.4 Typical Junction Capacitance

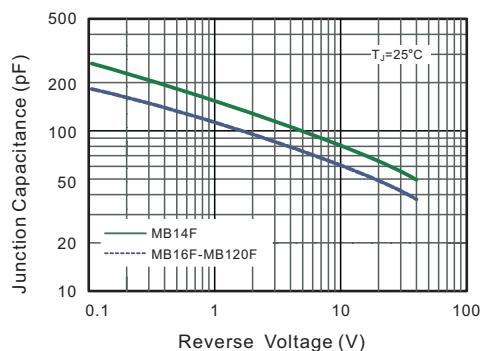


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

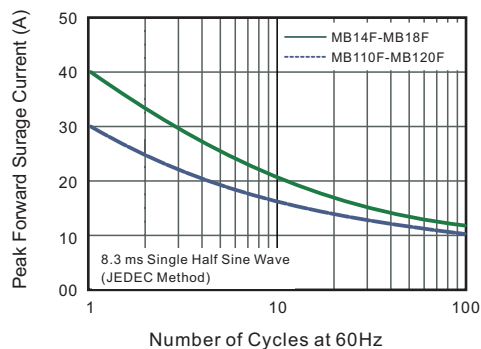
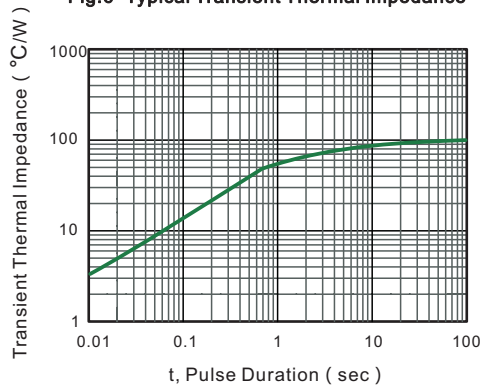
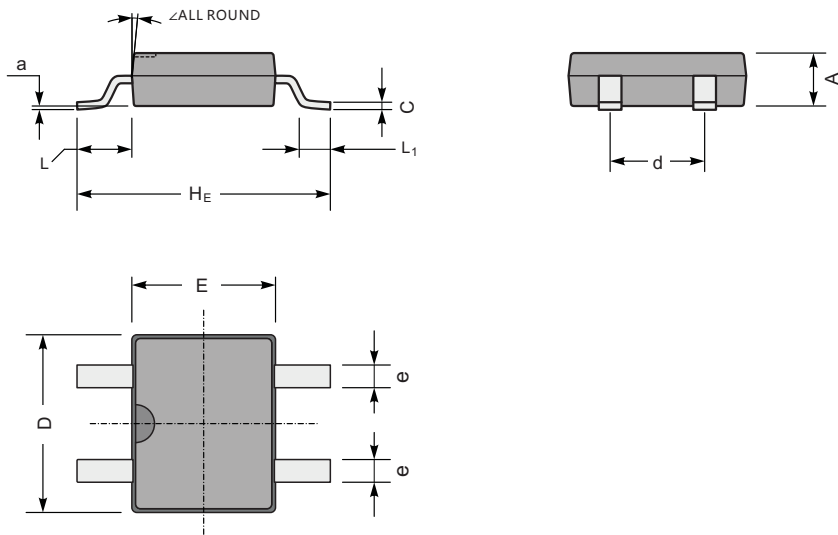


Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE
Plastic surface mounted package; 4 leads

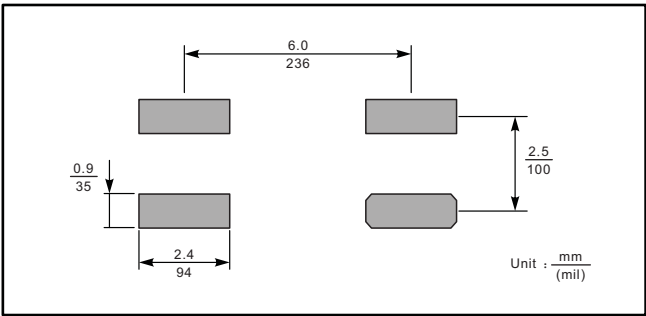
MBF



MBF mechanical data

UNIT		A	C	D	E	H _E	d	e	L	L ₁	a	$\angle$
mm	max	1.6	0.22	5.0	4.1	7.0	2.7	0.8	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	31	67	43	8	
	min	47	5.9	177	142	252	91	20	51	20	—	

The recommended mounting pad size



Marking

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

The diagram shows the marking code MBxxF on the package, where 'xx' represents the specific package type number.