

MB14FAT THRU MB120FAT

SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIERS

Forward Current : 1.0A

Reverse Voltage : 40V to 200V

FEATURES

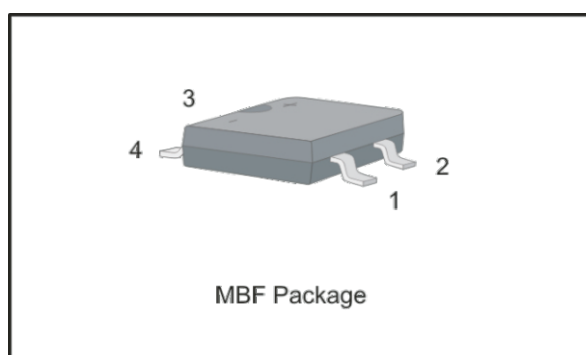
- ◆ Reverse Voltage : 40 to 200 V
- ◆ Forward Current : 1 A
- ◆ High Surge Current Capability
- ◆ Designed for Surface Mount Application

MECHANICAL DATA

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

PINNING

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



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 derating by 20 %.

PARAMETER	SYMBOL	MB14FAT	MB16FAT	MB18FAT	MB110FAT	MB115FAT	MB120FAT	UNIT
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 at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current ^(Note1)	I_{FSM}	40			30			A
Maximum Forward Voltage at 1.0A	V_F	0.50	0.70		0.85	0.90		V
Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_C=25^\circ\text{C}$ at $T_C=100^\circ\text{C}$	I_R	0.3 10			0.2 5	0.1 2		μA
Typical Junction Capacitance ^(Note2)	C_J	110	80				pF	
Typical Thermal Resistance ^(Note3)	$R_{\theta JA}$	100						$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +125						$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150						$^\circ\text{C}$

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

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

3. Mounted on 4 X 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.

Dated: 01/2017
Rev:2.0

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

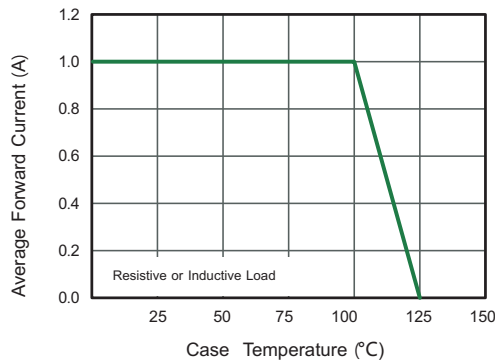


Fig.2 Typical Reverse Characteristics

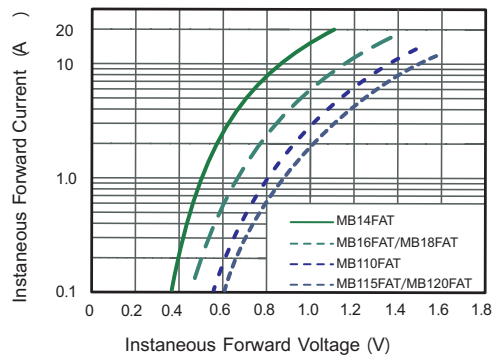
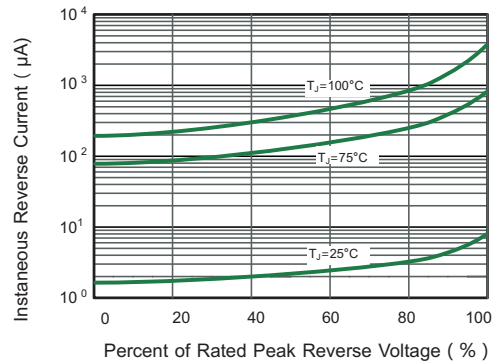


Fig.4 Typical Junction Capacitance

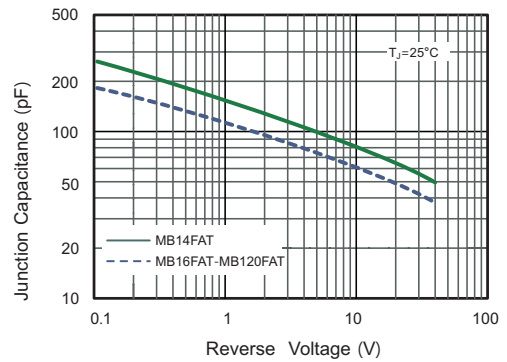


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

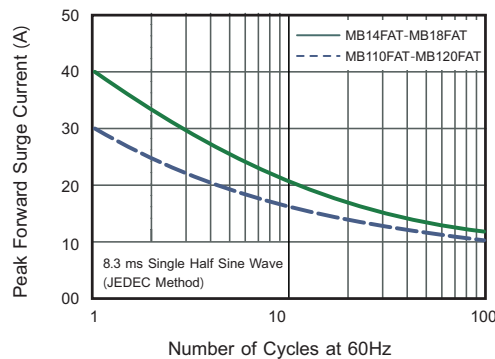
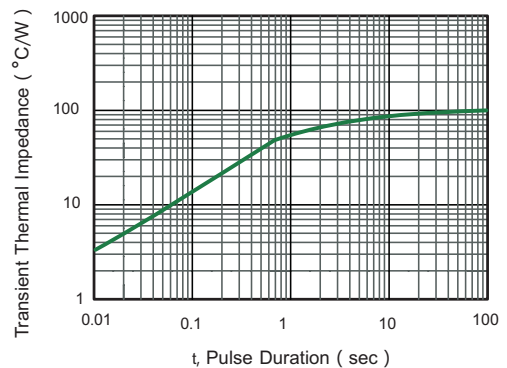


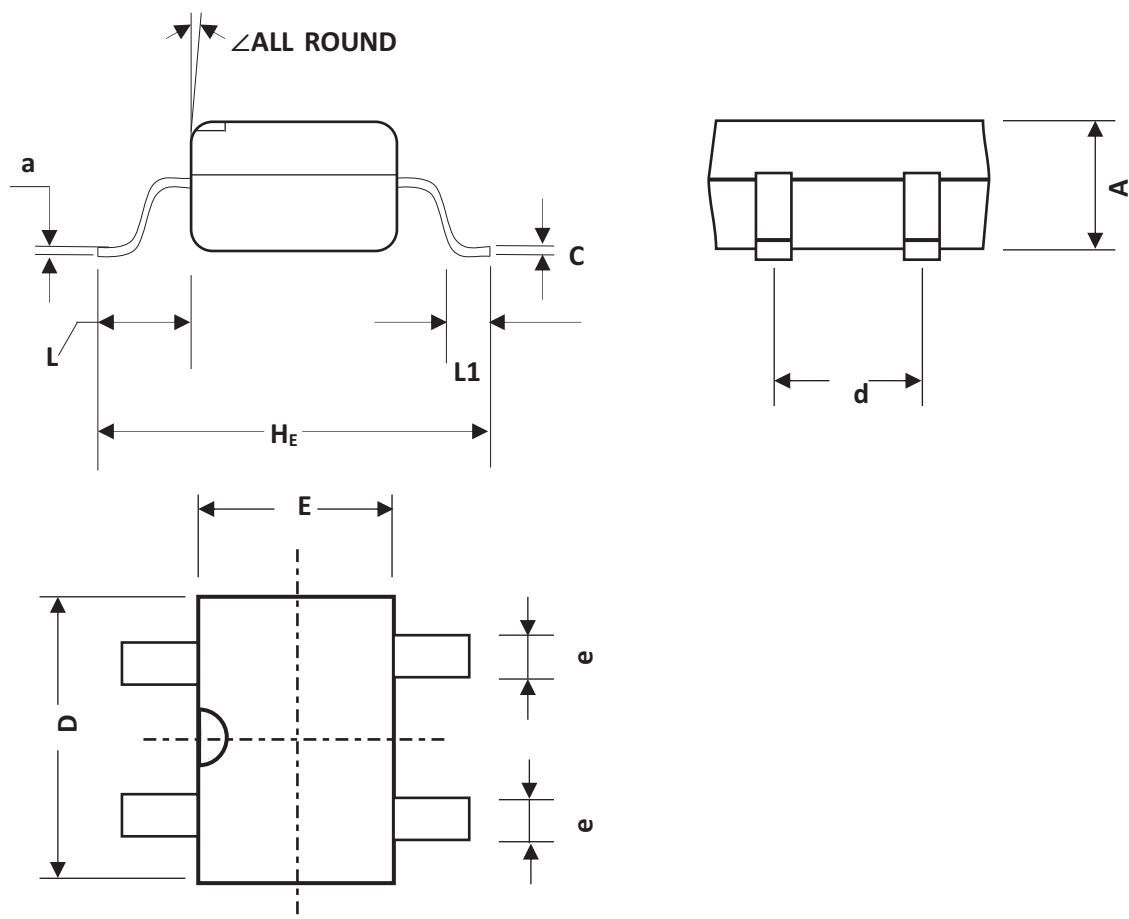
Fig.6- Typical Transient Thermal Impedance



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PACKAGE OUTLINE

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	—	

ORDERING INFORMATION

Device	Package	Shipping
MB14FAT thru MB120FAT	MBF	3,000/Tape & Reel (11 inches)
		5,000/Tape & Reel (13 inches)