

**3A SURFACE MOUNT SCHOTTKY BRIDGE**

**RECTIFIER Reverse Voltage - 40 to 200 V**

**Forward Current - 3A**

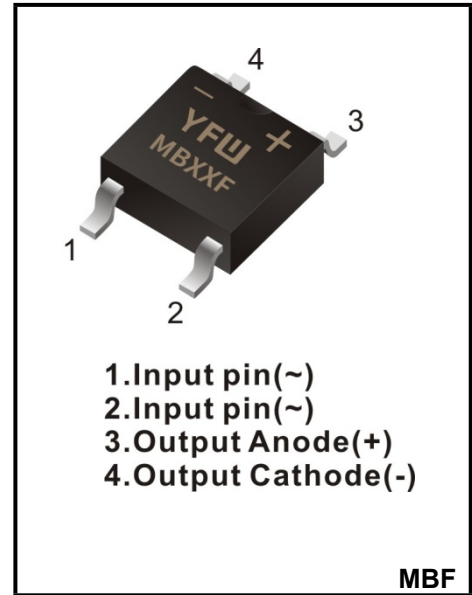
**FEATURES**

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



**MECHANICAL DATA**

- ◆ Case: MBF
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 88mg / 0.0031oz



**Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified.

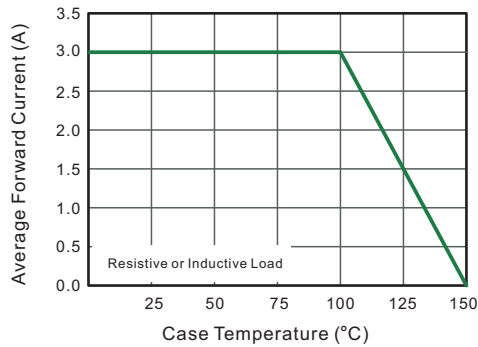
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB34F	MB36F	MB38F	MB310F	MB320F	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	200	V
Maximum RMS voltage	$V_{RMS}$	28	42	56	70	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	200	V
Average Rectified Output Current	$I_{F(AV)}$	3					A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)	$I_{FSM}$	80		70			A
Max Instantaneous Forward Voltage at 3 A	$V_F$	0.55	0.70	0.85		0.95	V
Maximum DC Reverse Current @ $T_A=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_A=100^{\circ}C$	$I_R$	0.5	0.3				$\mu A$
		10	5				
Typical Junction Capacitance (Note1)	$C_j$	220	160			100	pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	65					$^{\circ}C/W$
Operating and Storage Temperature Range	$T_j$	-55 ~ +150					$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 ~ +150					$^{\circ}C$

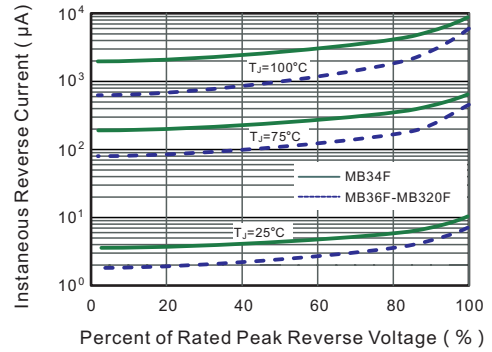
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

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

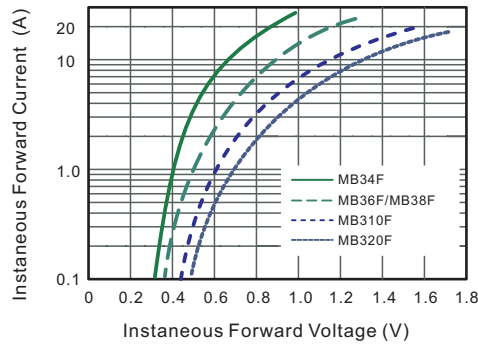
**Fig.1 Forward Current Derating Curve**



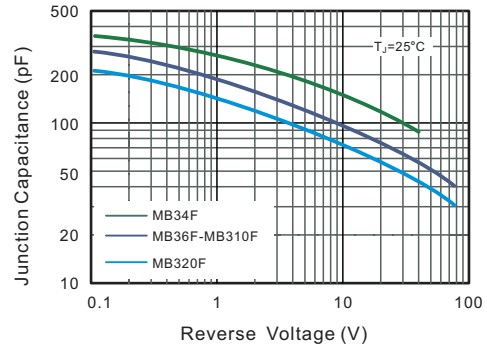
**Fig.2 Typical Reverse Characteristics**



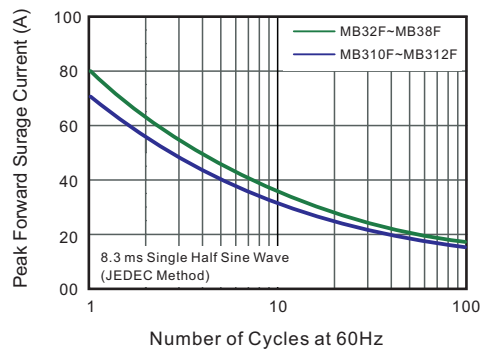
**Fig.3 Typical Forward Characteristic**



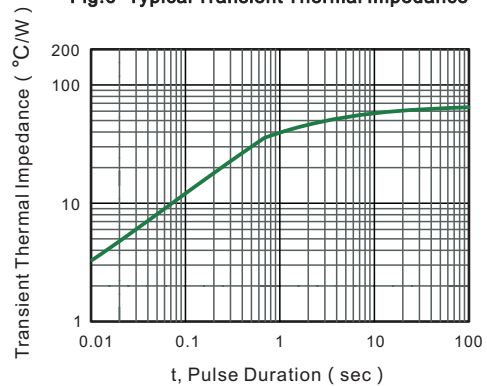
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



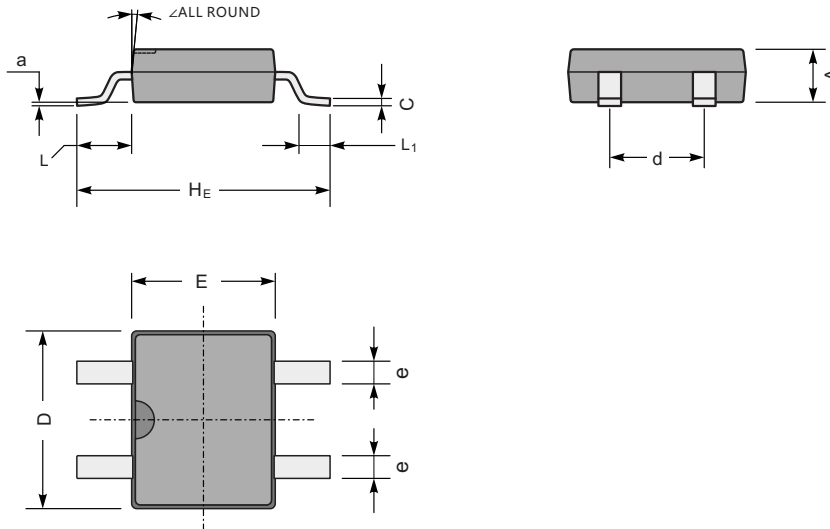
**Fig.6 Typical Transient Thermal Impedance**



**Package Outline**

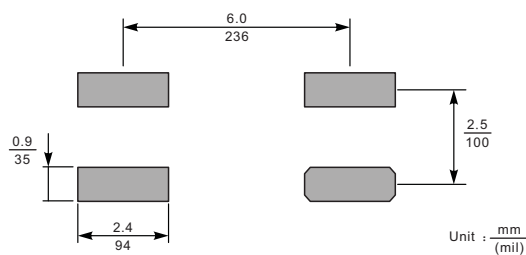
**MBF**

Plastic surface mounted package; 4 leads



UNIT		A	C	D	E	H <sub>E</sub>	d	e	L	L <sub>1</sub>	a	∠
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**



**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
MBF	Tape/Reel, 13" reel	5000	EIA-481-1