

MB14F THRU MB120F

SURFACE MOUNT SHOTTKY BRIDGE



VOLTAGE 40~200 Volts **CURRENT** 1.0 Amperes **MBF** Unit:(mm)

FEATURES

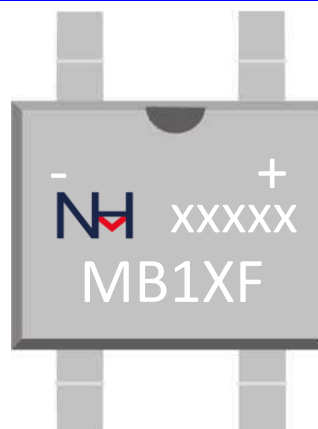
- Reverse Voltage - 40 to 200 V
- Forward Current - 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: Molded plastic, MBF
- Epoxy: UL 94V-O rate flame retardant
- Terminals: Leads solderable per MIL-STD-202,method 208 guaranteed
- Mounting position: Any
- Approx. Weight: 75mg 0.0026oz

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications



Remark:

- (1).+ , - =Polarity mark;
- (2).NH=niuhang trademark;
- (3).xxxxxx:
The first two xx:Production line,According to actual changes;
The last three xxx:Periodic code,According to actual changes;
- (4).MB1XF=Modle;

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C(UNLESS OTHERWISE NOTED)

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

Parameter	Symbol	MB14F	MB16F	MB18F	MB110F	MB115F	MB120F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	80	100	150	200	V
Maximum RMS Voltag	V_{RMS}	28	42	56	70	106	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	150	200	V
Maximum average forward rectified current (See fig.1	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30						A
Maximum instantaneous forward voltage at 2A DC(Note 3)	V_F	0.57	0.70	0.85		0.95		V
Maximum instantaneous reverse current at rated DC blocking voltage (Note 4)	I_{RRM}	500				200		uA
		10		5		2		mA
Typical Junction Capacitance Per Element (Note 5)	C_J	220						pF
Operating junction	T_J	125		150		175		°C
Storage temperature range	T_{STD}	-55 to +150						°C

- Notes: 1. On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
 2. On aluminum substrate P.C.B. with an area of 0.8" x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad
 3. Pulse test: 300 μs pulse width, 1% duty cycle.
 4. Pulse test: pulse width≤40ms
 5. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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RATING AND CHARACTERISTIC CURVES

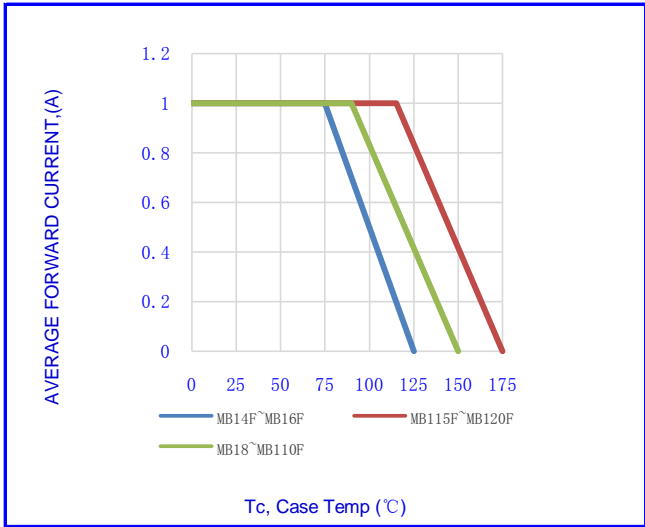


Fig.1-FORWARD CURRENT DERATING CURVE

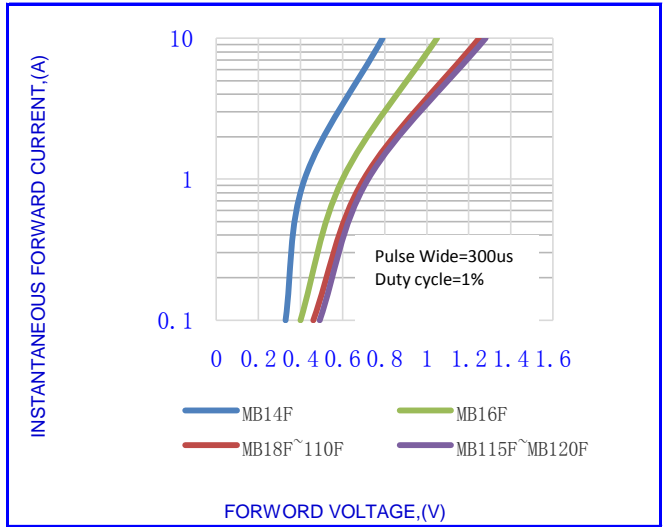


Fig.2- TYPICAL INSTANTANEOUS FORWARD

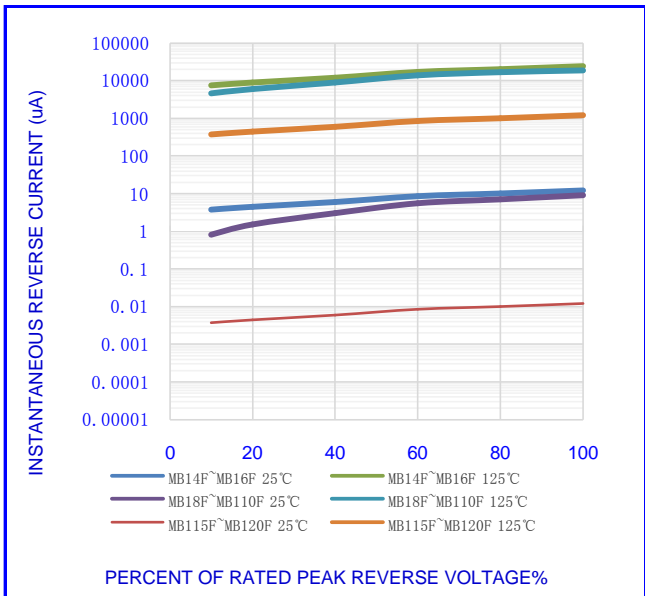


Fig.3-TYPICAL REVERSE CHARACTERISTICS

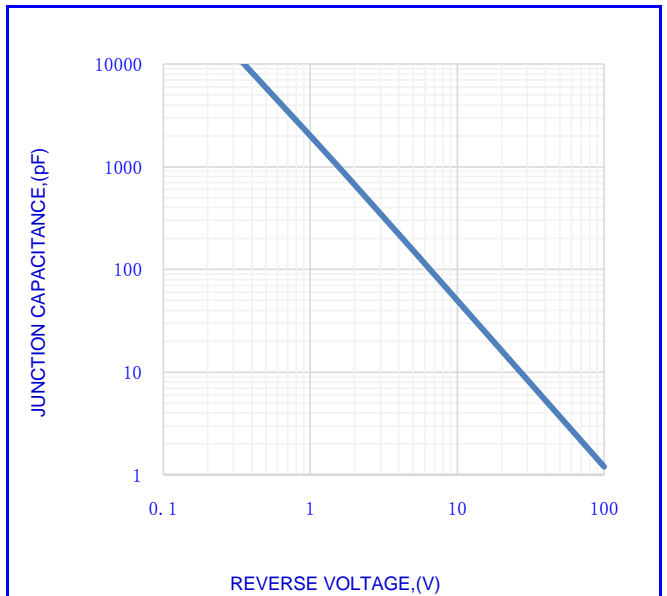


Fig.4- TYPICAL JUNCTION CAPACITANCE

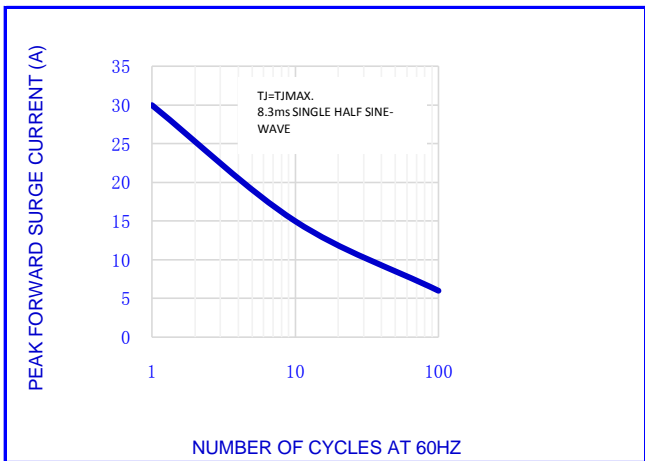
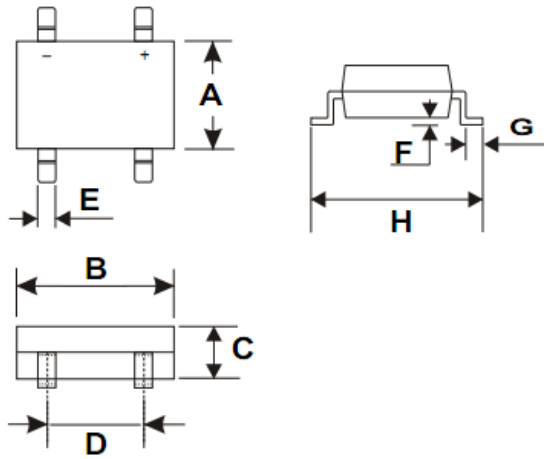


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

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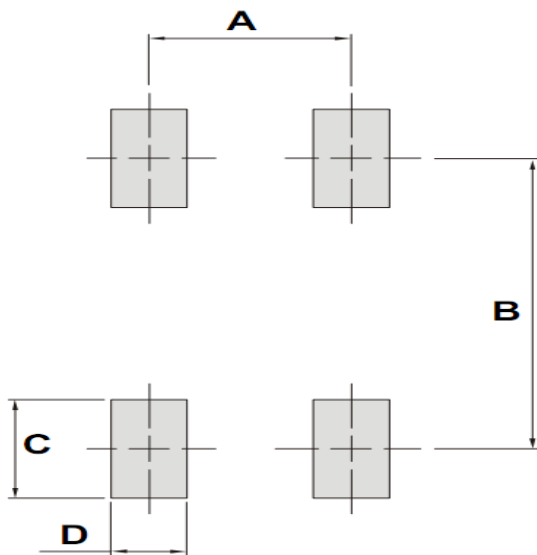
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OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	3.600	-	4.000	0.142	-	0.157
B	4.500	-	4.900	0.177	-	0.193
C	1.200	-	1.600	0.047	-	0.063
D	2.200	-	2.800	0.087	-	0.110
E	0.450	-	1.050	0.018	-	0.041
F	-	-	0.200	-	-	0.008
G	0.550	-	1.900	0.022	-	0.075
H	-	-	7.500	-	-	0.295

MBF

MOUNTING PAD LAYOUT



OUTLINE DIMENSIONS						
DIM	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		2.400			0.0945	
B		6.000			0.2362	
C		1.840			0.0724	
D		0.900			0.0354	

Packing Information

Package	Pack	Quantity (pcs/box)	Box Size LxWxH (mm)	Carton Size LxWxH (mm)	Quantity (box/carton)
MBF	T/R	5000	340x340x40	360x360x60	10