



MB1FU THRU MB10FU

1.0AMP Surface Mount Glass Passivated Bridge Rectifier

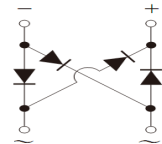
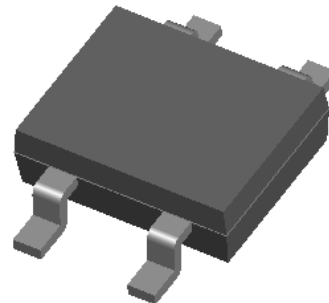
1. Features

- Glass passivated chip junction
- For surface mounted application.
- Low forward voltage drop.
- High current capability.
- High reliability.
- Meets MSL level 1, per J-STD-020.

MBF

2. Mechanical Data

- Case:Molded Plastic,MBF.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:marked on body.



3. Maximum Ratings and Electrical Characteristics

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	MB1FU	MB2FU	MB4FU	MB6FU	MB8FU	MB10FU	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current @T _C =100°C	I _{F(AV)}	1.0						A
Peak Forward Surge Current 8.3ms @T _J =25°C	I _{FSM}	35						A
Single half sine-wave superimposed @T _J =125°C on rated load (JEDEC Method)		28						
I ² t Rating for Fusing (t < 8.3ms)	I ² t	5.084						A ² S
Maximum Instantaneous Forward Voltage @I _F =1A	V _{FM}	1.0						V
Maximum DC reverse current @T _J =25°C	I _R	5.0						uA
at rated DC blocking voltage @T _J =125°C		100						
Typical Junction Capacitance (Note 1)	C _j	8						pF
Typical Thermal Resistance	R _{θJA}	105						°C/W
	R _{θJL}	20						
	R _{θJC}	10						
Operating Temperature Range	T _j	-55 to+150						°C
Storage Temperature Range	T _{STG}	-55 to+150						°C

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

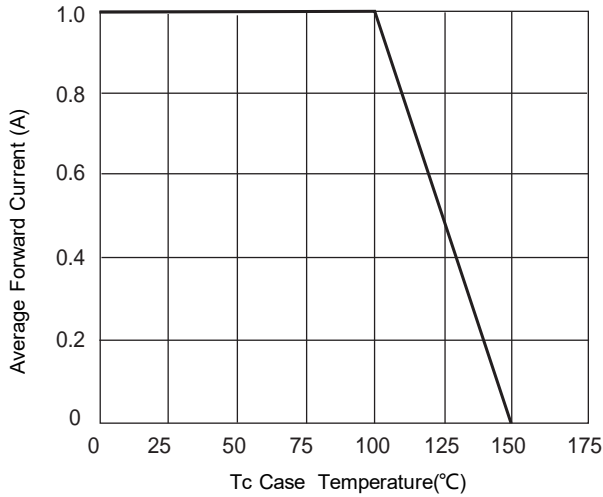


Fig. 2 Typical Forward Characteristics

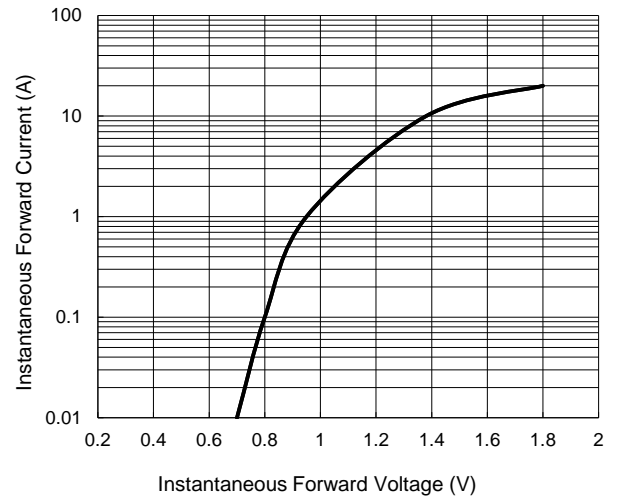


Fig. 3 Forward Surge Current Capability

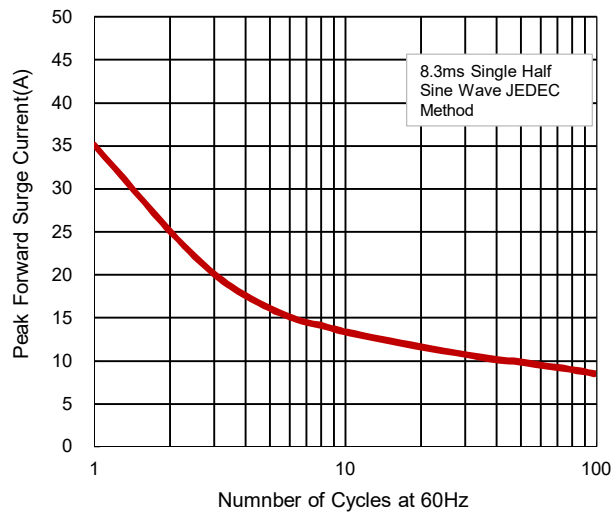
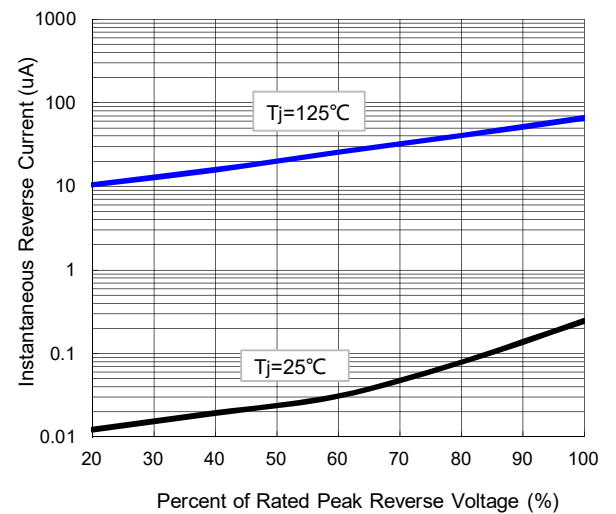


Fig.4 Typical Reverse Characteristics

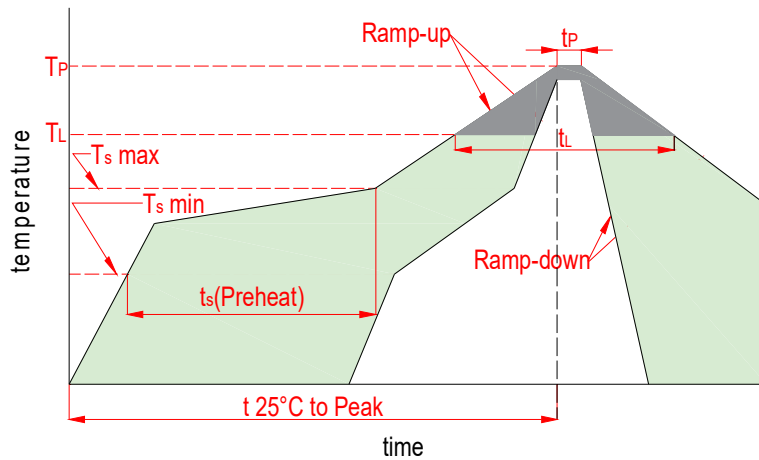




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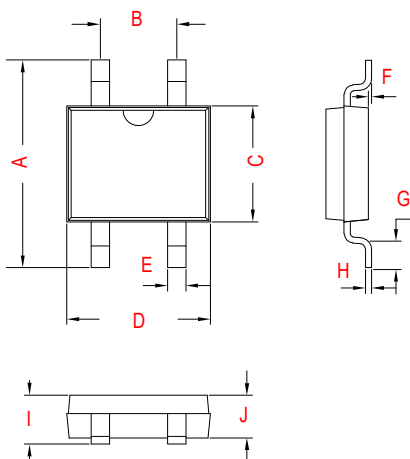
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5. Soldering Parameters



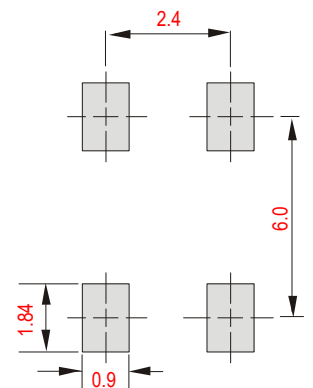
Reflow Condition		Lead-free
Pre Heat	Temp. min($T_s(\min)$)	150℃
	Temp. max($T_s(\min)$)	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
$T_s(\max)$ to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp. (T_L)(Liquidus)	217℃
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_p)		260 ^{+0/-5} ℃
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6℃/s max
Time 25℃ to peak Tempe. (T_p)		8 minutes max
Do not exceed		260℃

6. Dimensions

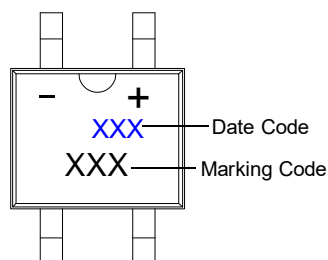
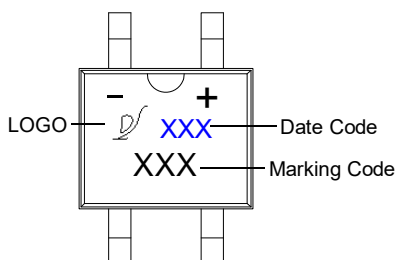


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.252	0.276	6.4	7.0
B	0.091	0.106	2.3	2.7
C	0.142	0.161	3.6	4.1
D	0.177	0.195	4.5	4.95
E	0.020	0.031	0.5	0.8
F	---	0.008	---	0.2
G	0.027	0.043	0.7	1.1
H	0.006	0.014	0.15	0.35
I	0.047	0.071	1.2	1.8
J	0.047	0.063	1.2	1.6

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	inch	
MBF	12	330	13	5000



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