

MB05F-08 THRU MB10F-08

MBF 0.8 AMP Plastic-Encapsulate Bridge Rectifier

MBF Plastic-Encapsulate Bridge Rectifier

● Features

- Ideal for printed circuit board
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

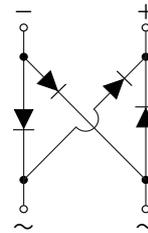
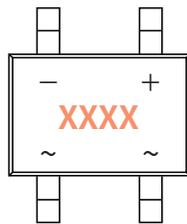
● Applications

General purpose 1 phase Bridgerectifier applications

● Mechanical Data

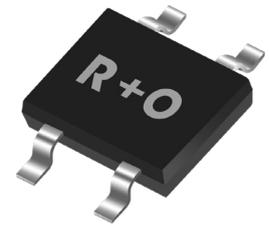
- Case: MBF
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

● Function Diagram



Reverse Voltage
50-1000 V
Forward Current
0.8 Ampere

MBF



● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MB05F-08	MB1F-08	MB2F-08	MB4F-08	MB6F-08	MB8F-08	MB10F-08
Device marking code			MB05F8	MB1F8	MB2F8	MB4F8	MB6F8	MB8F8	MB10F8
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	0.8						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	30						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	3.7						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	75						
	$R_{\theta J-L}$	°C /W	20						

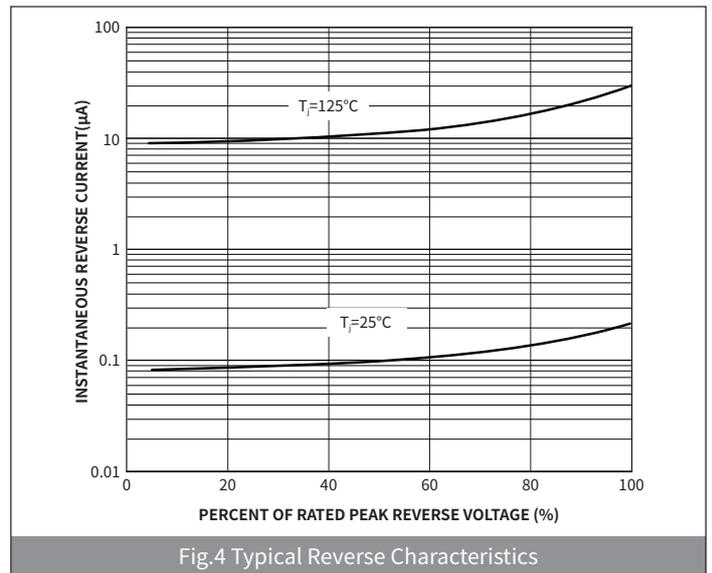
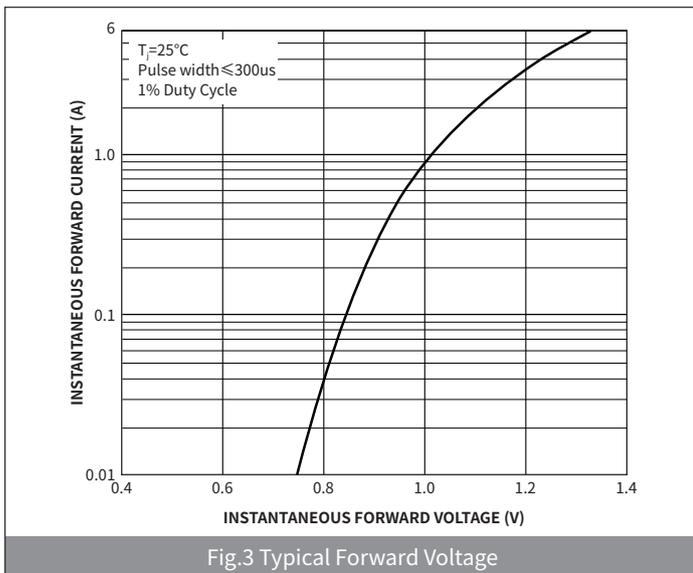
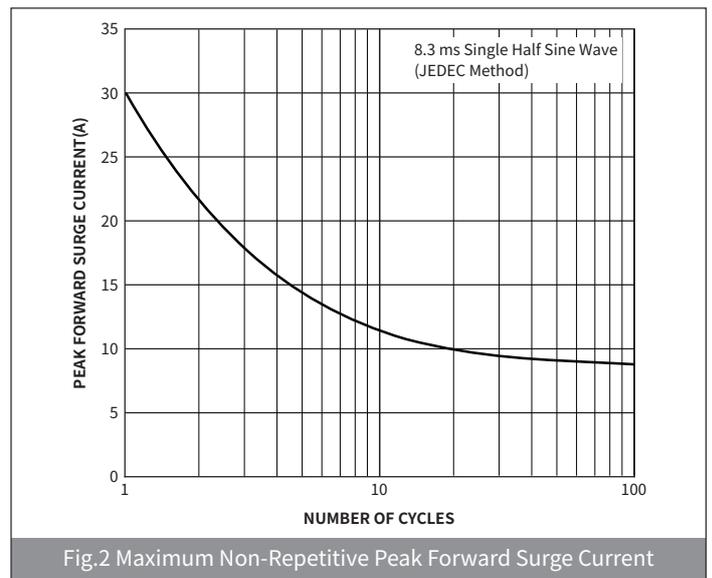
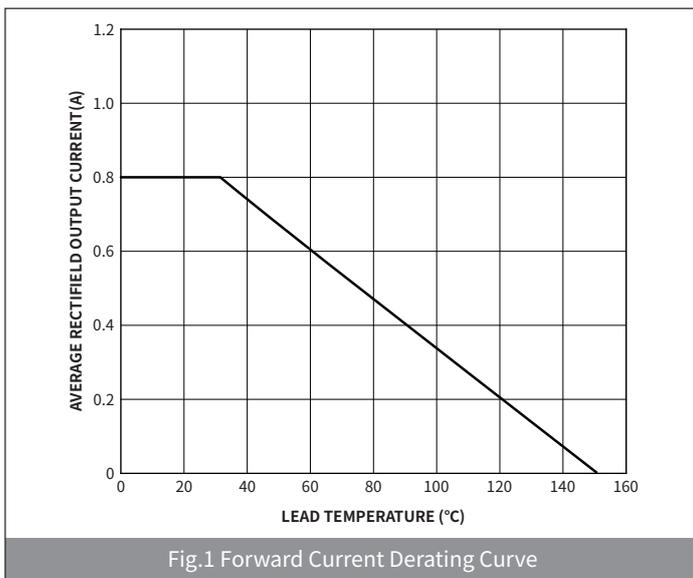
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● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	MB05F-08	MB1F-08	MB2F-08	MB4F-08	MB6F-08	MB8F-08	MB10F-08
Maximum instantaneous forward voltage	$I_F=0.4A$	V_F	V	1.0						
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	μA	5.0						
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		500						
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	13						

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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● Ordering Information

PACKAGE	PACKAGE CODE	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
MBF	R3	5000	10000	80000	13"

● Package Outline Dimensions (MBF)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.5	4.9	0.177	0.193
A1	-	0.2	-	0.008
B	1.3	1.7	0.051	0.067
C	-	7.0	-	0.275
E	3.6	4.0	0.141	0.157
L	0.7	1.1	0.027	0.043
N	0.15	0.35	0.006	0.014
b	0.56	0.84	0.022	0.033
e	2.2	2.7	0.086	0.106

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	6.0	6.2	0.236	0.24
N	2.4	2.6	0.09	0.102
Y	1.84	2.0	0.072	0.079
X	1.2	1.4	0.047	0.055