

MB1F-10~MB10F-10

Rev.F Jun.-2023

DATA SHEET

/ Descriptions

1.0A MBF
 1.0A Surface Mount Glass Passivated Bridge Rectifier, MBF thin package.

/ Features

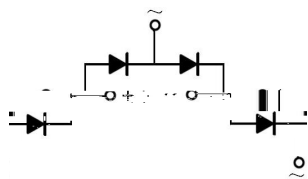
100V ~ 1000V 1.0A

Glass Passivated Chip Junction, Reverse Voltage:100to1000V, Forward Current: 1.0A, High Surge Current Capability, Designed for Surface Mount Application, HF Product.

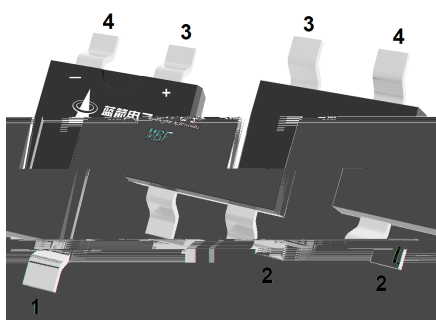
/ Applications

General purpose.

/ Equivalent Circuit

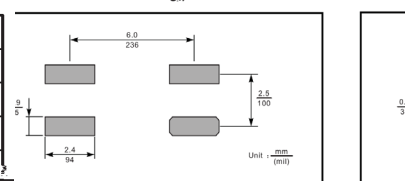


/ Pinning



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

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating						Unit
		MB1F-10	MB2F-10	MB4F-10	MB6F-10	MB8F-10	MB10F-10	
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 at $T_c=125^\circ C$	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	35						A
Typical Junction Capacitance ¹⁾	C_j	13						pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	80						/W
	$R_{\theta JC}$	25						
Operating and Storage Temperature Range	T_j, T_{stg}	-55~+150						

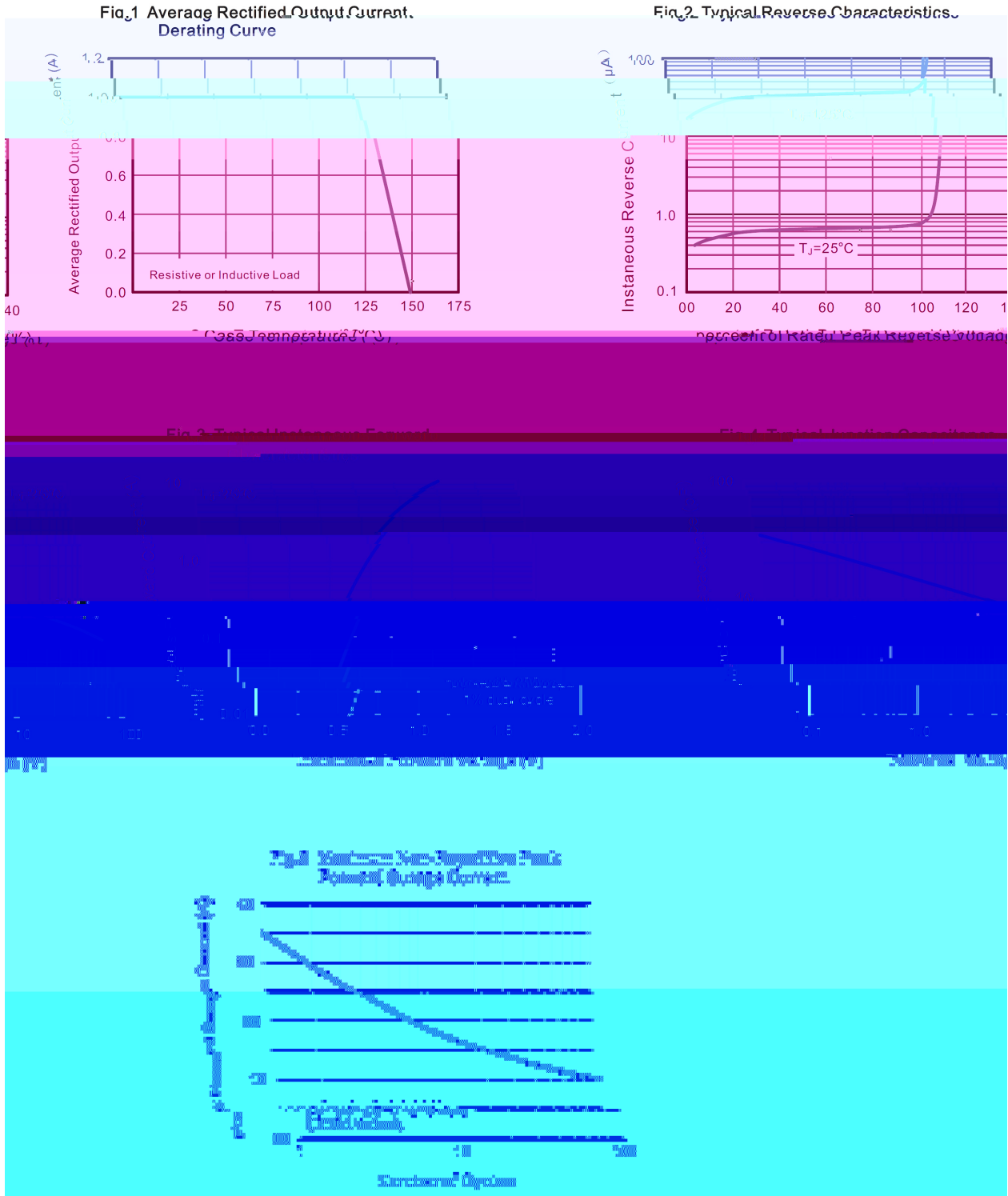
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with $4 \times 1.5'' \times 1.5''$ 3.81×3.81 cm copper pad.

/ Electrical Characteristics(Ta=25)

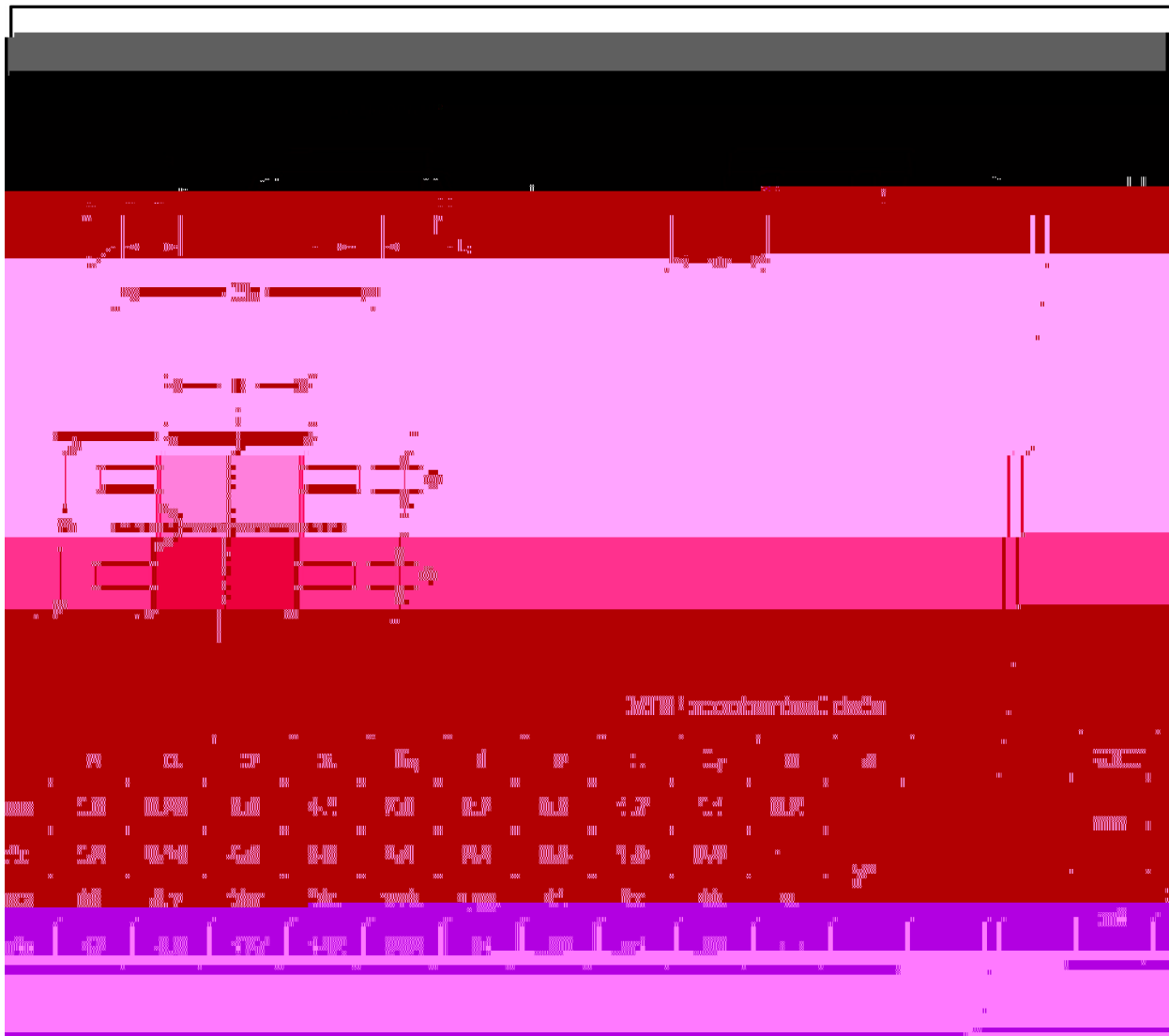
Parameter	Symbol	Test Conditions	数值 Rating	Unit
Max Instantaneous Forward Voltage	V_F	$I_F=1.0A$	1.1	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ C$	5.0	μA
		$T_a=125^\circ C$	40	μA

/ Electrical Characteristic Curve



/ Package Dimensions

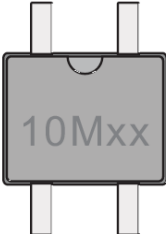
MBF



/ Marking Instructions

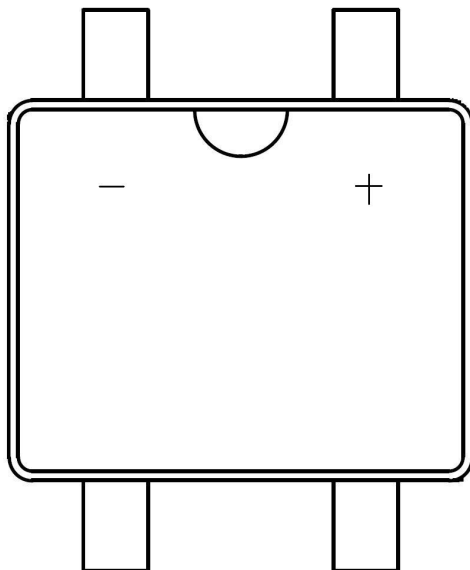
Marking

Type number	Marking code
I MB1F-10	10M1
I MB2F-10	10M2
II MB4F-10	10M4
II MB6F-10	10M6
II MB8F-10	10M8
II MB10F-10	10M10



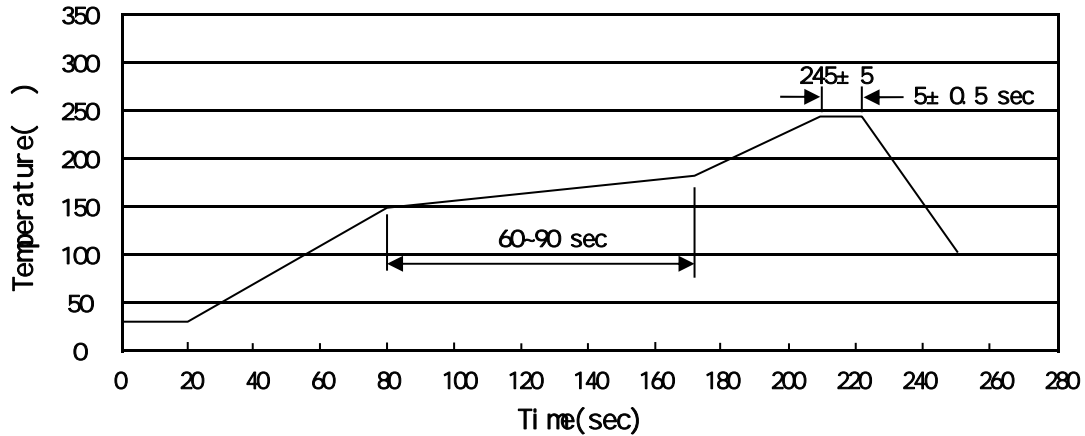
The diagram shows a rectangular component with four pins. The marking '10Mxx' is printed on the top surface of the component.

/ Marking Instructions



10M1

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-------|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | | 5±0.5 | sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
MBF	5,000	2	10,000	7	70,000	13" x12	336X336X40	380X335X366

/ Notices