

# MB1F-10~MB10F-10

Rev.E Jan.-2021

## 描述 / Descriptions

1.0A 表面贴装玻璃钝化整流桥，薄型 MBF 封装。

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

## 特征 / Features

玻璃钝化芯片，反向电压：100V~1000V，正向电流：1.0A，浪涌电流大，适用于表面贴装,无卤产品。

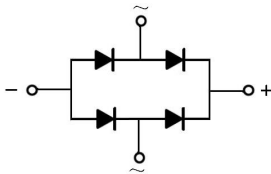
Glass Passivated Chip Junction, Reverse Voltage:100to1000V, Forward Current: 1.0A, High Surge Current Capability, Designed for Surface Mount Application, Halogen free product.

## 用途 / Applications

一般用途.

General purpose.

## 内部等效电路 / Equivalent Circuit

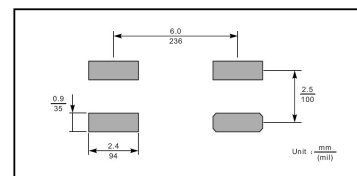


## 引脚排列 / Pinning



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

The recommended mounting pad size



## 印章代码 / Marking

见印章说明。 See Marking Instructions.

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating						单位 Unit
		MB1F-10	MB2F-10	MB4F-10	MB6F-10	MB8F-10	MB10F-10	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Average Rectified Output Current at Ta = 50°C	I <sub>F(AV)</sub>	1.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	35						A
Typical Junction Capacitance <sup>1)</sup>	C <sub>j</sub>	13						pF
Typical Thermal Resistance <sup>2)</sup>	R <sub>θJA</sub>	85						°C/W
	R <sub>θJL</sub>	30						
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-55~+150						°C

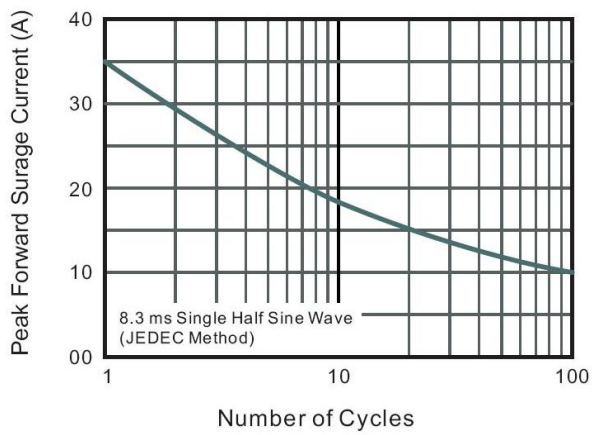
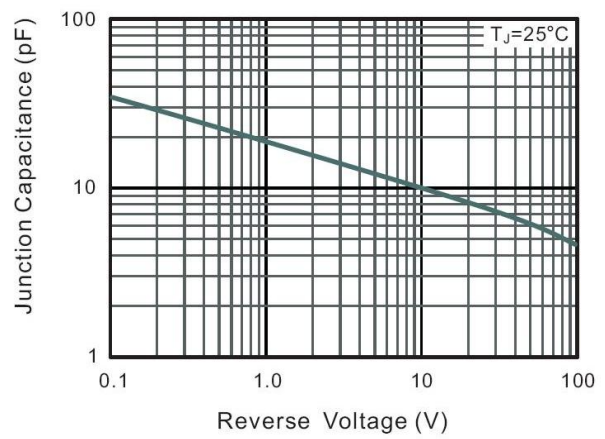
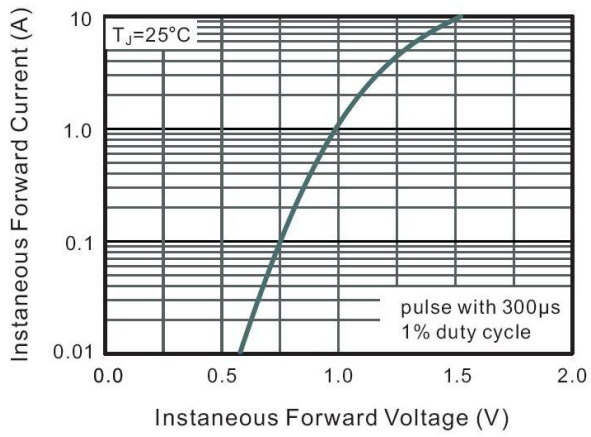
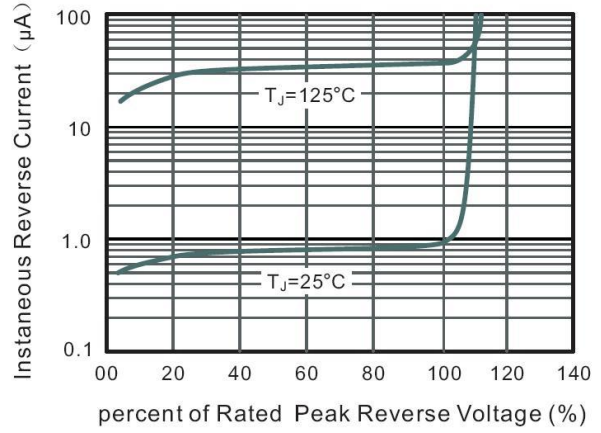
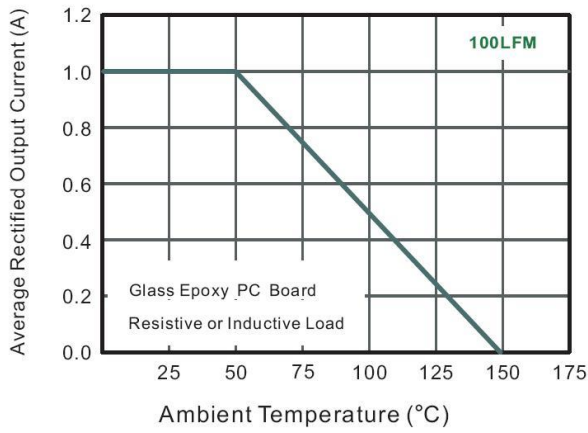
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×(5×5mm<sup>2</sup>) copper pad.

**电性能参数 / Electrical Characteristics(Ta=25°C)**

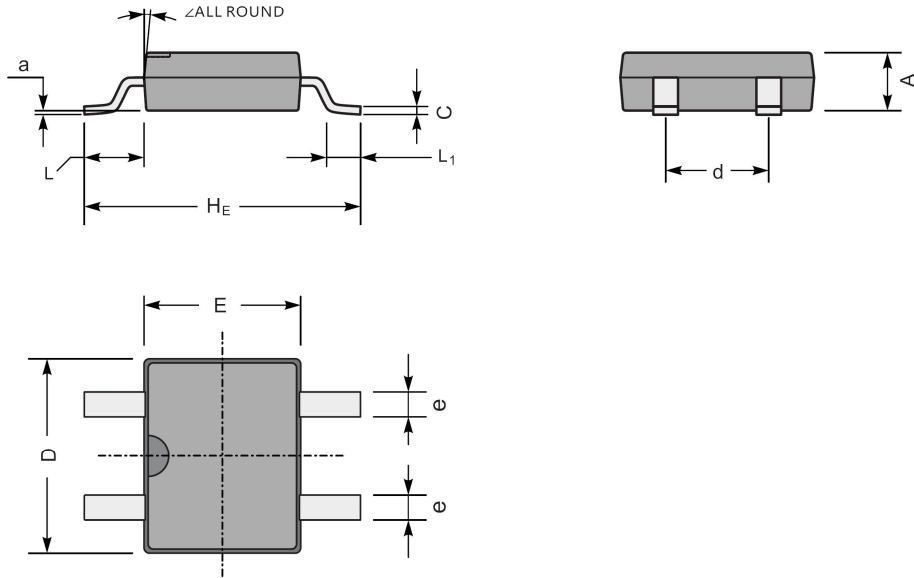
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Max Instantaneous Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A	1.1	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I <sub>R</sub>	T <sub>a</sub> =25°C	5.0	μA
		T <sub>a</sub> =125°C	40	μA

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

MBF



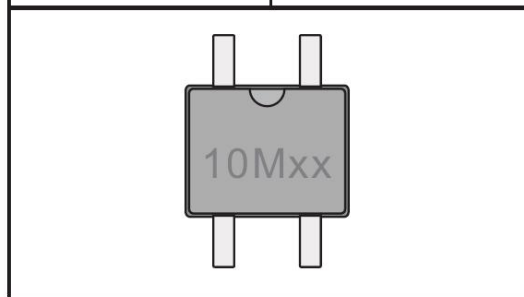
MBF mechanical data

UNIT		A	C	D	E	$H_E$	d	e	L	$L_1$	a	$\angle$
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	—	

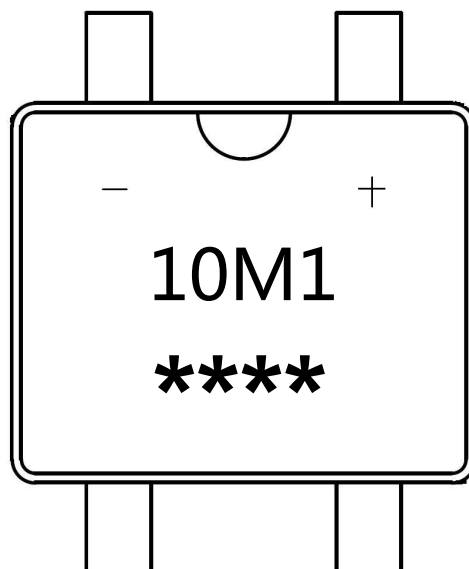
印章说明 / Marking Instructions

### Marking

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



印章说明 / Marking Instructions



说明

10M1 : 为型号代码

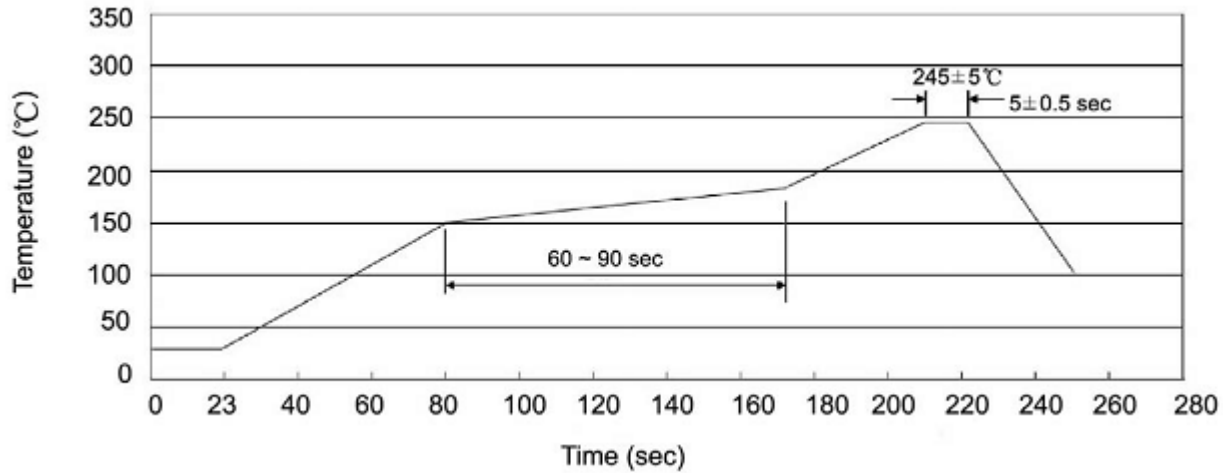
\*\*\*\* : 为生产批号追溯码, 第 1 个\*为年月代码, 后面 3 个\*为当月小批号代码

Note:

10M1 : Product Type Code

\*\*\*\* : Lot No. Code , The 1st \* means:YM Code , The last 3 \* means:little Lot No Code

**回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)**



说明：

- 1、预热温度  $25 \sim 150^\circ\text{C}$ ，时间  $60 \sim 90\text{sec}$ ；
- 2、峰值温度  $245 \pm 5^\circ\text{C}$ ，时间持续为  $5 \pm 0.5\text{sec}$ ；
- 3、焊接制程冷却速度为  $2 \sim 10^\circ\text{C}/\text{sec}$ 。

Note:

- 1.Preheating: $25 \sim 150^\circ\text{C}$ ，Time: $60 \sim 90\text{sec}$ 。
- 2.Peak Temp.: $245 \pm 5^\circ\text{C}$ ，Duration: $5 \pm 0.5\text{sec}$ 。
3. Cooling Speed:  $2 \sim 10^\circ\text{C}/\text{sec}$ 。

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度： $260 \pm 5^\circ\text{C}$

时间： $10 \pm 1$  sec.

Temp.: $260 \pm 5^\circ\text{C}$

Time: $10 \pm 1$  sec

**包装规格 / Packaging SPEC.**

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
MBF	5000	2	10000	7	70000	13" × 12	336X336X40	380X335X366

**使用说明 / Notices**

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