

# MB24F~MB220F

Rev.E Jan.-2021

## 描述 / Descriptions

2.0A 表面贴装肖特基桥，薄型 MBF 封装。

2.0A Surface Mount Schottky Bridge, MBF thin package.

## 特征 / Features

浪涌电流大，反向电压：40V~200V，正向电流：2.0A，适用于表面贴装。无卤产品。

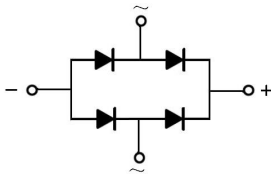
High Surge Current Capability, Reverse Voltage: 40 to 200V, Forward Current: 2.0A, Designed for Surface Mount Application. Halogen free product.

## 用途 / Applications

一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit

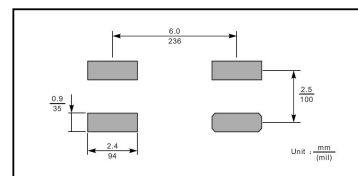


## 引脚排列 / Pinning



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
		MB24F	MB26F	MB28F	MB210F	MB220F	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	60	80	100	200	V
Maximum RMS Voltage	$V_{RMS}$	28	42	56	70	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	60	80	100	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0					A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50		40			A
Typical Junction Capacitance <sup>1)</sup>	$C_j$	220	80				pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	75					°C/W
Operating Junction Temperature Range	$T_j$	-55~+125					°C
Storage Temperature Range	$T_{stg}$	-55~+150					°C

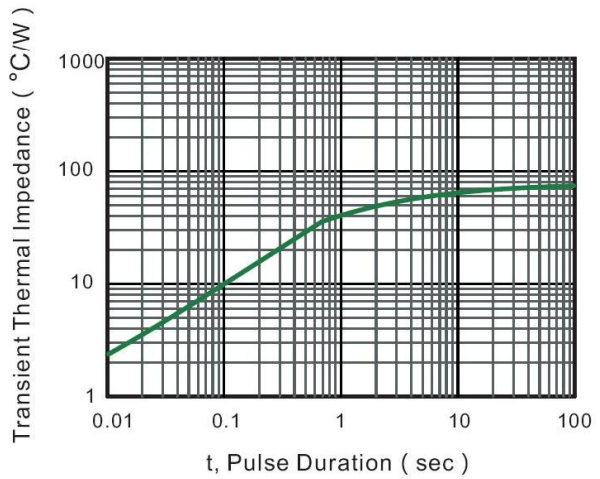
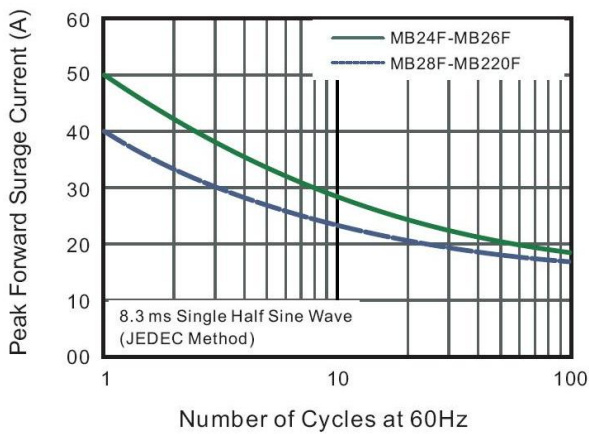
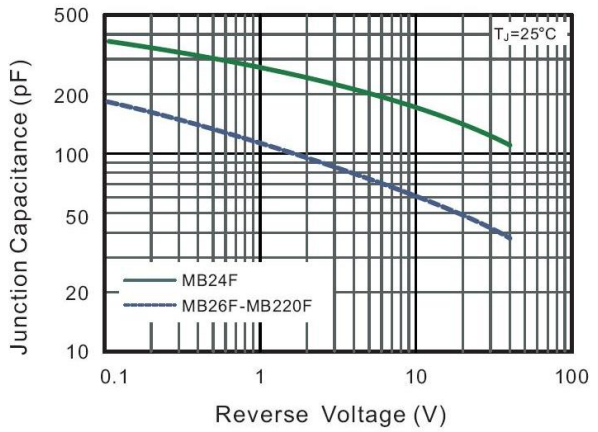
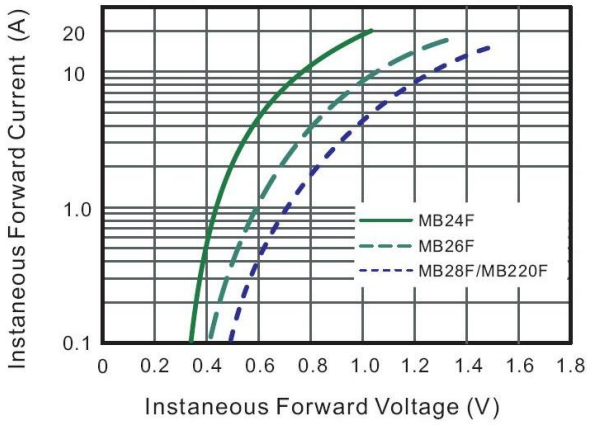
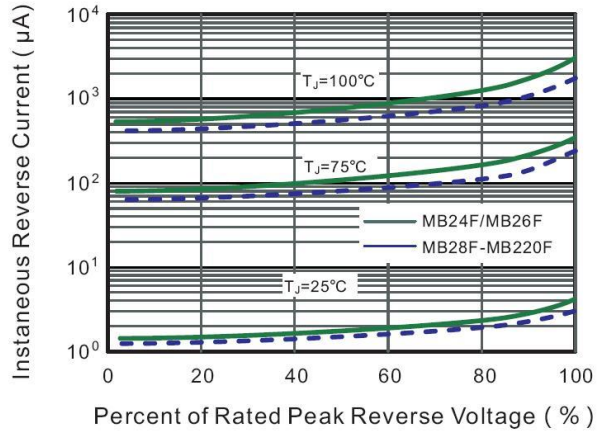
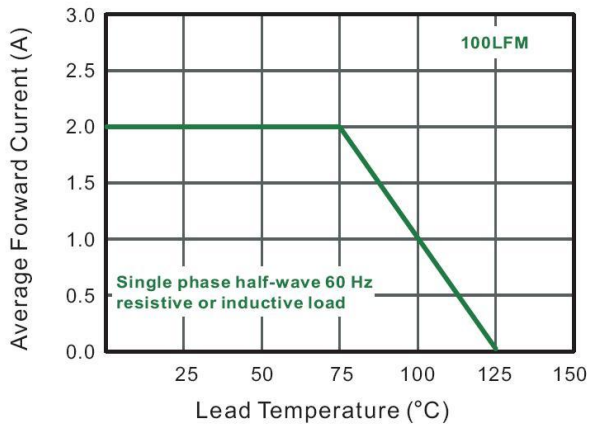
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with  $4 \times (5 \times 5mm^2)$  copper pad.

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

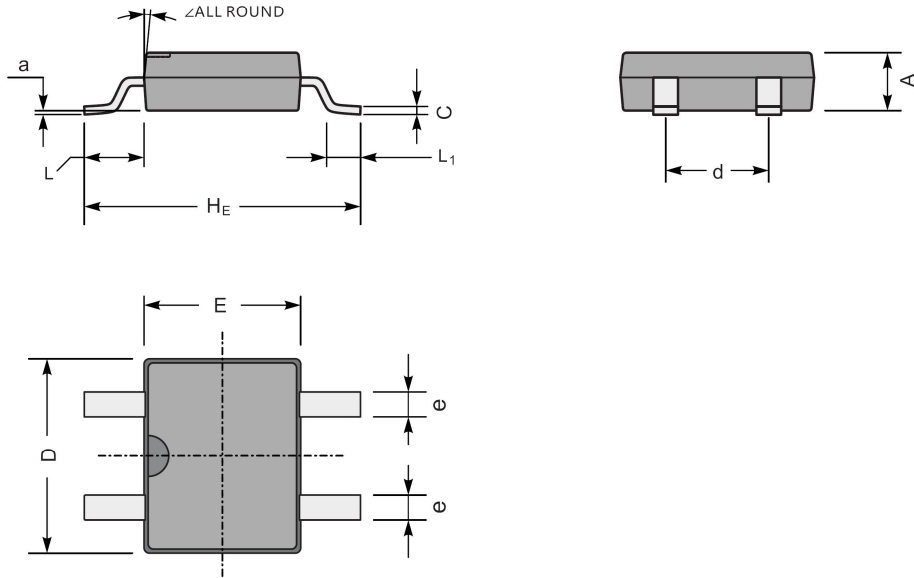
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating					单位 Unit
			MB24F	MB26F	MB28F	MB210F	MB220F	
Max Instantaneous Forward Voltage	$V_F$	$I_F=2.0A$	0.55	0.70	0.85			V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	$I_R$	$T_a=25^\circ C$	0.5			0.3		mA
		$T_a=100^\circ C$	10			5.0		mA

**电参数曲线图 / Electrical Characteristic Curve**



外形尺寸图 / Package Dimensions

MBF

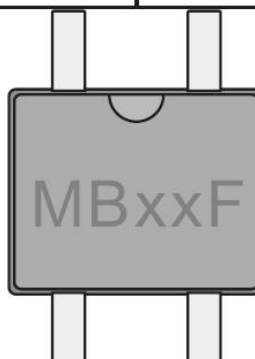


MBF mechanical data

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	—	

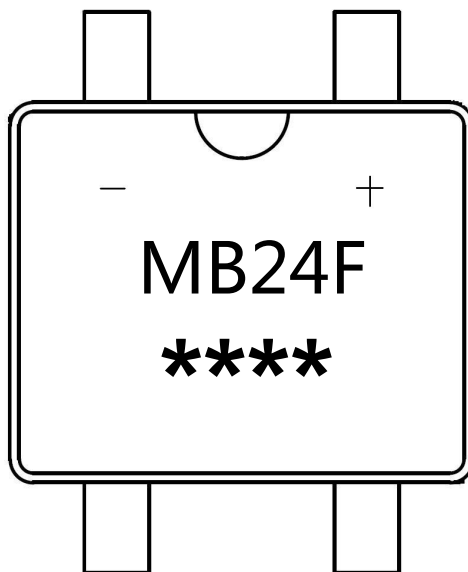
## Marking

Type number	Marking code
MB24F	MB24F
MB26F	MB26F
MB28F	MB28F
MB210F	MB210F
MB220F	MB220F



The diagram shows a rectangular component with four pins (two on top, two on bottom). The marking 'MBxxF' is printed on the component, where 'xx' represents the specific type number.

印章说明 / Marking Instructions



说明

MB24F : 为型号代码

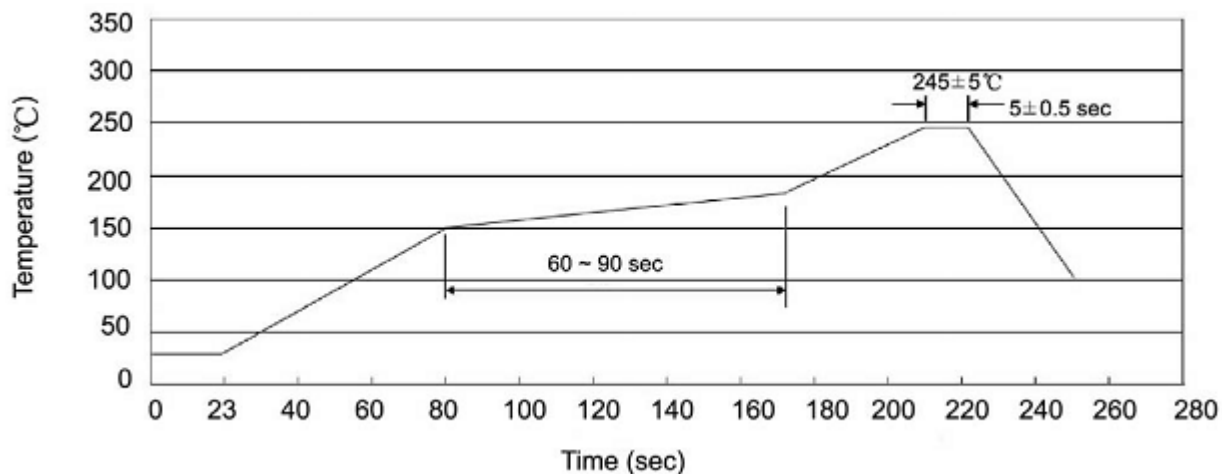
\*\*\*\* : 为生产批号追溯码, 第 1 个\*为年月代码, 后面 3 个\*为当月小批号代码

Note:

MB24F : 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 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

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

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±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**