

MB14F~MB120F

Rev.E Jan.-2021

描述 / Descriptions

1.0A 表面贴装肖特基桥，薄型 MBF 封装。

1.0A 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：1.0A，适用于表面贴装。无卤产品。

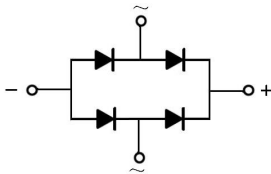
High Surge Current Capability, Reverse Voltage: 40 to 200V, Forward Current: 1.0 A, Designed for Surface Mount Application. Halogen free product.

用途 / Applications

一般用途。

General purpose.

内部等效电路 / Equivalent Circuit

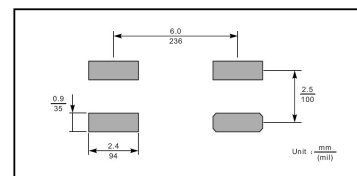


引脚排列 / Pinning



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
		MB14F	MB16F	MB18F	MB110F	MB115F	MB120F	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	60	80	100	150	200	V
Maximum RMS Voltage	V _{RMS}	28	42	56	70	105	140	V
Maximum DC Blocking Voltage	V _{DC}	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1.0						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	40			30			A
Typical Junction Capacitance ¹⁾	C _j	110	80				pF	
Typical Thermal Resistance ²⁾	R _{θJA}	115						°C/W
Operating Junction Temperature Range	T _j	-55~+125						°C
Storage Temperature Range	T _{stg}	-55~+150						°C

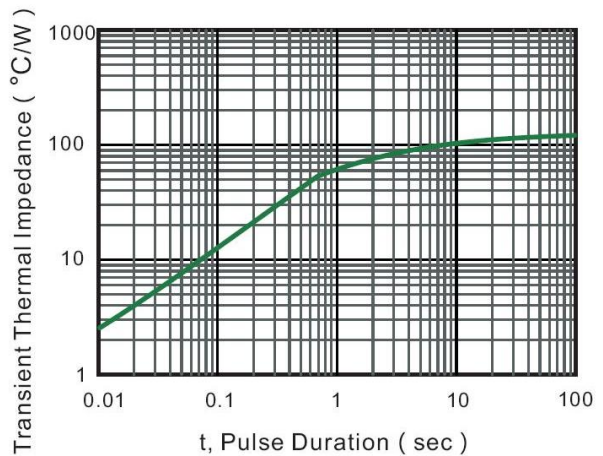
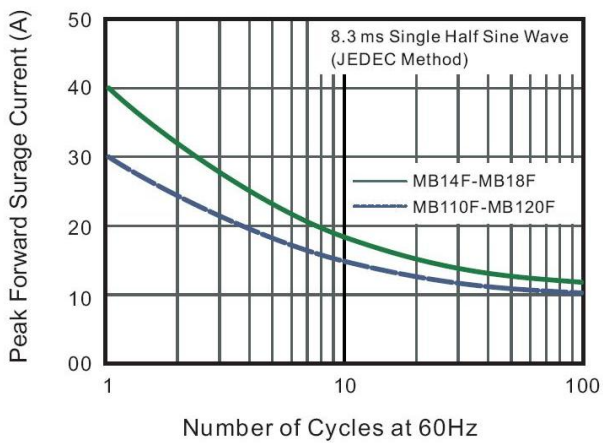
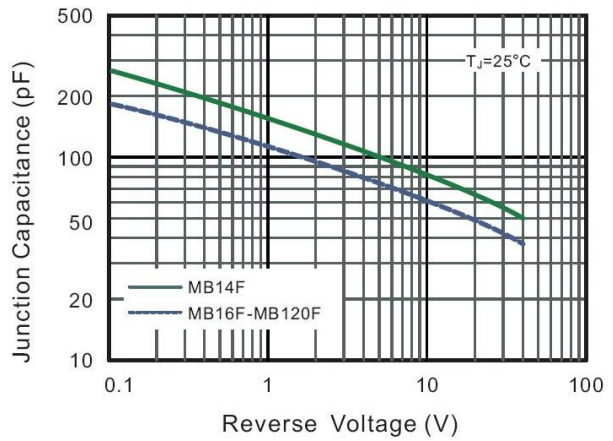
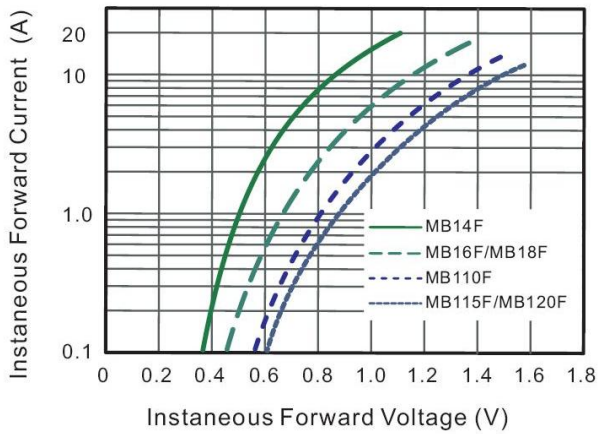
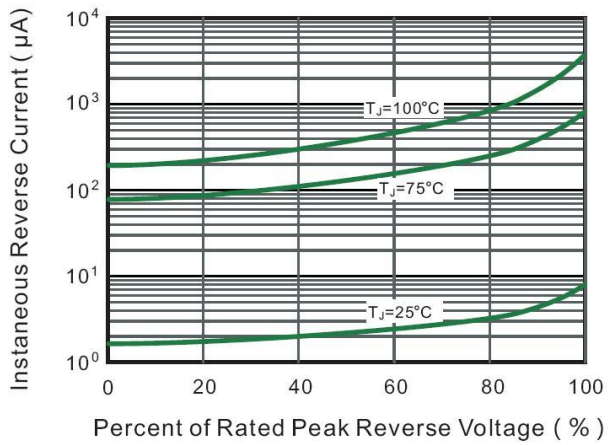
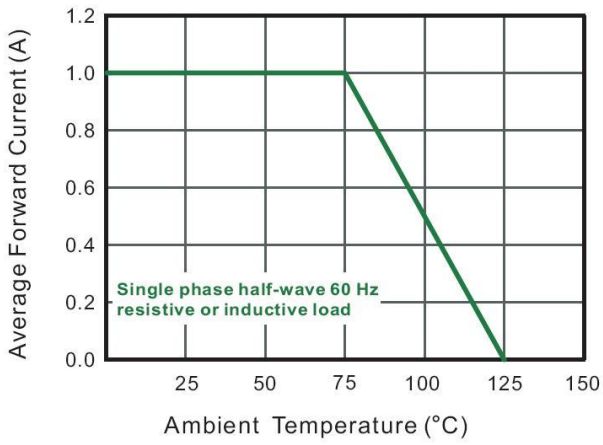
Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×(5×5mm²) copper pad.

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

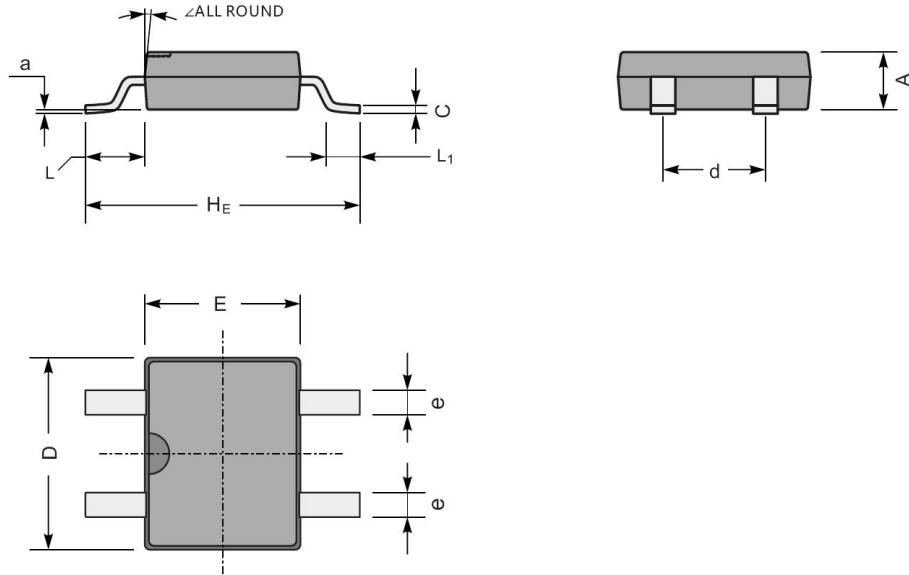
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating					单位 Unit	
			MB14F	MB16F	MB18F	MB110F	MB115F		MB120F
Max Instantaneous Forward Voltage	V _F	I _F =1.0A	0.50	0.70		0.85	0.90		V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I _R	T _a =25°C	0.3			0.2	0.1		mA
		T _a =100°C	10			5.0	2.0		mA

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

MBF



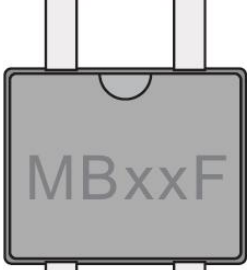
MBF mechanical data

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	—	

印章说明 / Marking Instructions

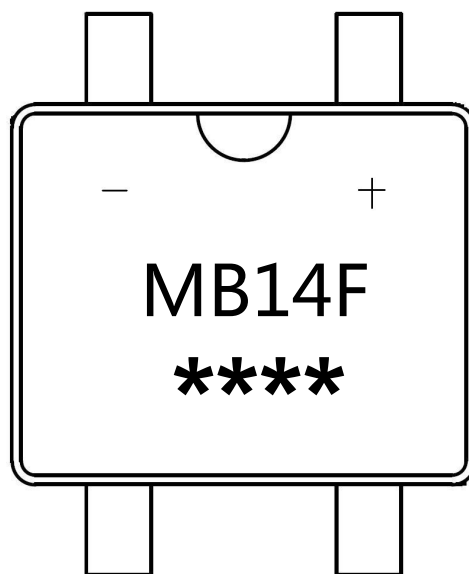
Marking

Type number	Marking code
MB14F	MB14F
MB16F	MB16F
MB18F	MB18F
MB110F	MB110F
MB115F	MB115F
MB120F	MB120F



The diagram shows a rectangular component with four leads. The marking code 'MBxxF' is printed on the component's surface.

印章说明 / Marking Instructions



说明

MB14F : 为型号代码

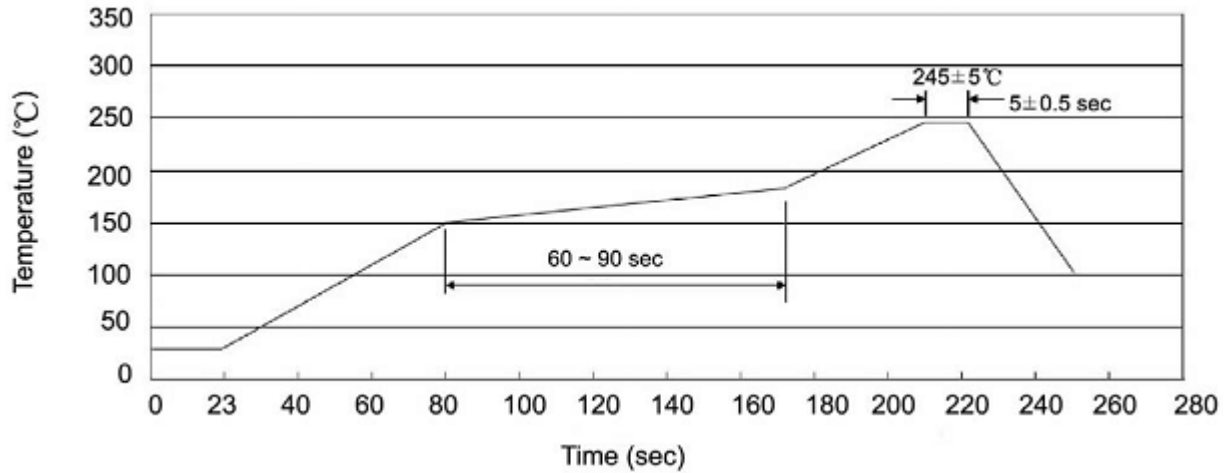
**** : 为生产批号追溯码，第 1 个*为年月代码，后面 3 个*为当月小批号代码

Note:

MB14F : 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 ± 1 sec.

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

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 ³)		
	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