MBRF10100CT

Rev.F Mar.-2016

描述 / Descriptions

TO-220F 塑料封装 肖特基二极管。

Schottky Diode in a TO-220F Plastic Package.

特征 / Features

损耗低，效率高。

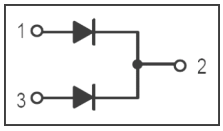
Low power loss,high efficiency.

用途 / Applications

用于高频、低压、大电流整流二极管，续流二极管，保护二极管。

For use in low voltage,high frequency inverters, free wheeling, and polarity protection applications.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1：Anode　　PIN 2：Cathode　　PIN 3：Anode

放大及印章代码 / h_{FE} Classifications & Marking

见印章说明。See Marking Instructions

极限参数 / Absolute Maximum Ratings(Ta=25℃)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage Peak Reverse Voltage	V_{RRM} V_{RWM} V_{RM}	100	V
RMS Reverse current	$V_{R(RMS)}$	70	V
Average Forward Current	$I_{F(AV)}$	2×5	A
Non Repetitive Peak Surge Current	I_{FSM}	125	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	4	℃/W
Junction Temperature Range	$T_{j,\ MAX}$	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

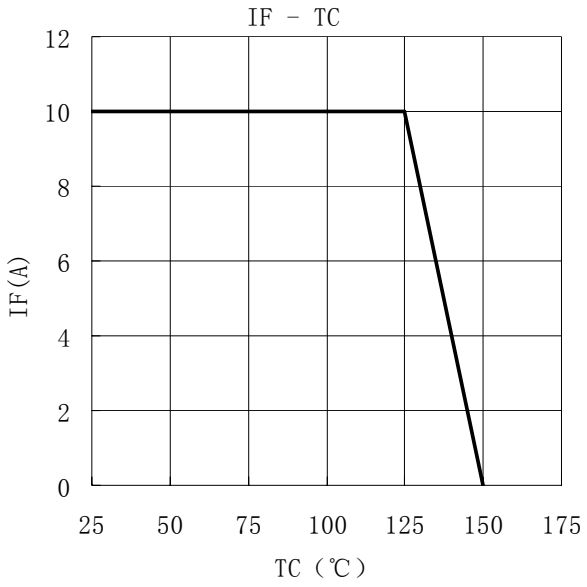
电性能参数 / Electrical Characteristics(Ta=25℃)

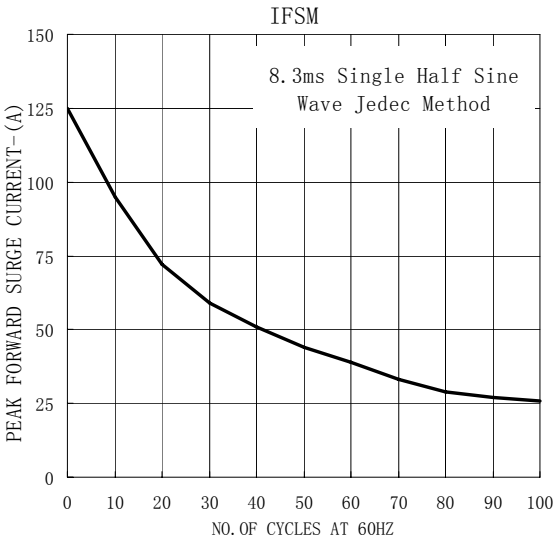
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Reverse Voltage	V_R	I_R=0.3mA	100			V
Forward Voltage	V_F	I_F =5A(T_j=25℃)			0.85	V
		I_F =5A(T_j=125℃)			0.75	V
		I_F =10A(T_j=25℃)			0.95	V
		I_F =10A(T_j=125℃)			0.85	V
Instantaneous Reverse Current	I_R	V_R=100V(T_j=25℃)			10	uA
		V_R=70V(T_j=125℃)			1.0	mA
		V_R=100V(T_j=125℃)			5.0	mA

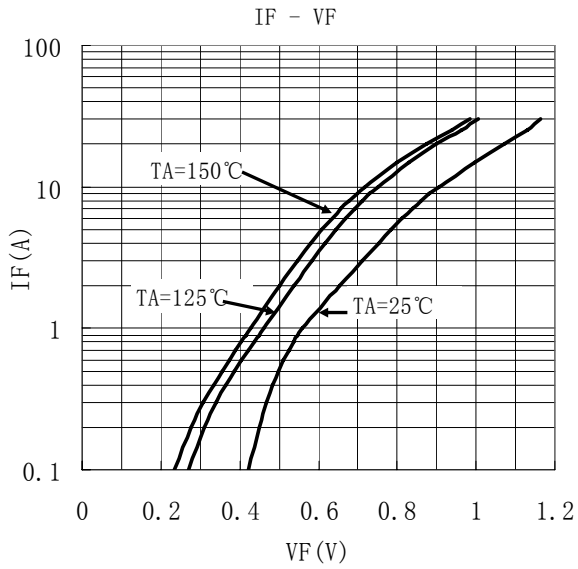
注/Notes：

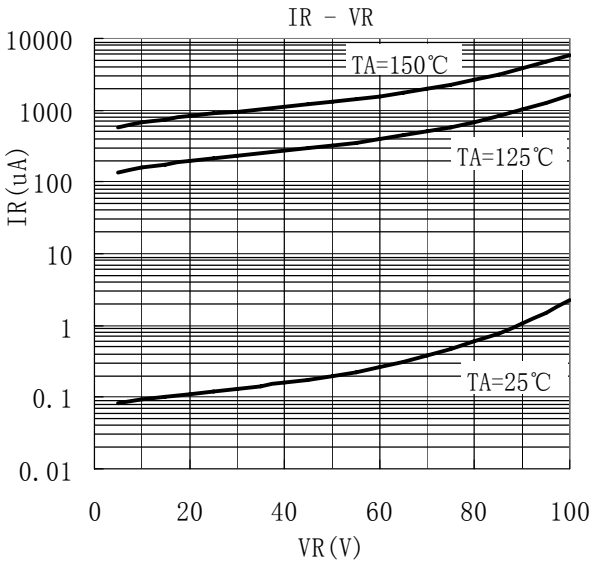
1. 使用极短的测试时间 ,以尽量减少自热效应。/Short duration pulse test used to minimize self-heating effect.
2. 除非特别注明，数值为一个芯片的参数。/ Unless otherwise noted, values for the parameters of a single chip

电参数曲线图 / Electrical Characteristic Curve



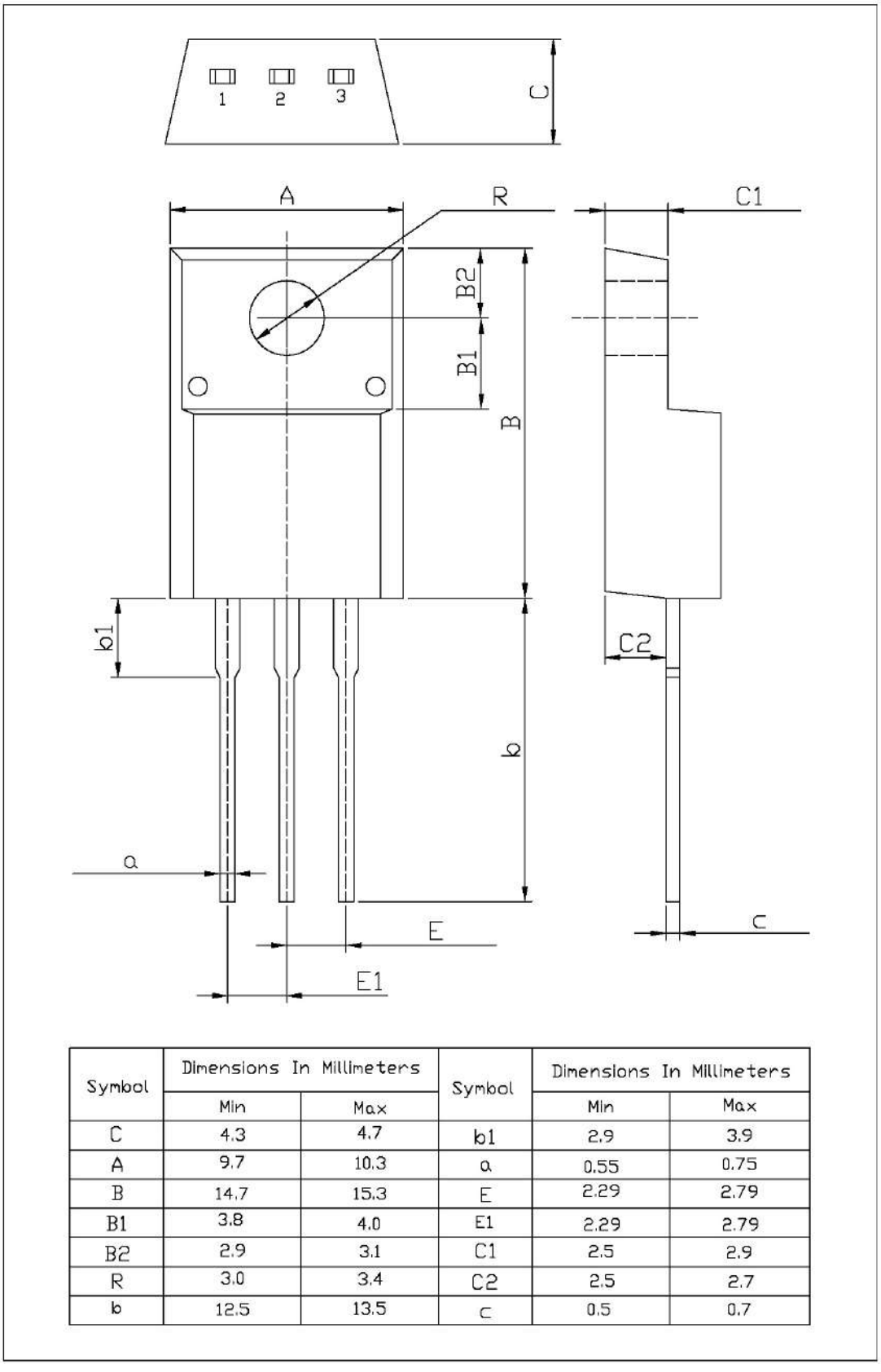






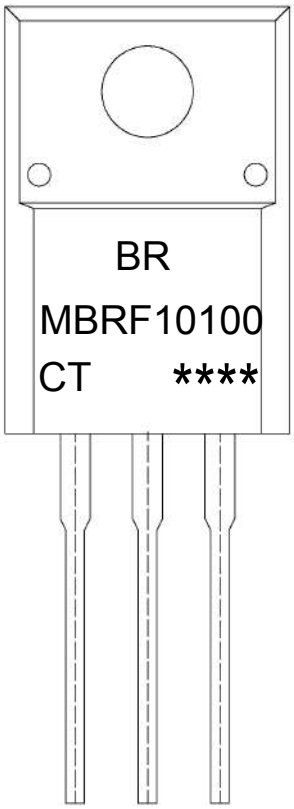
外形尺寸图 / Package Dimensions

TO-220F 单位：mm



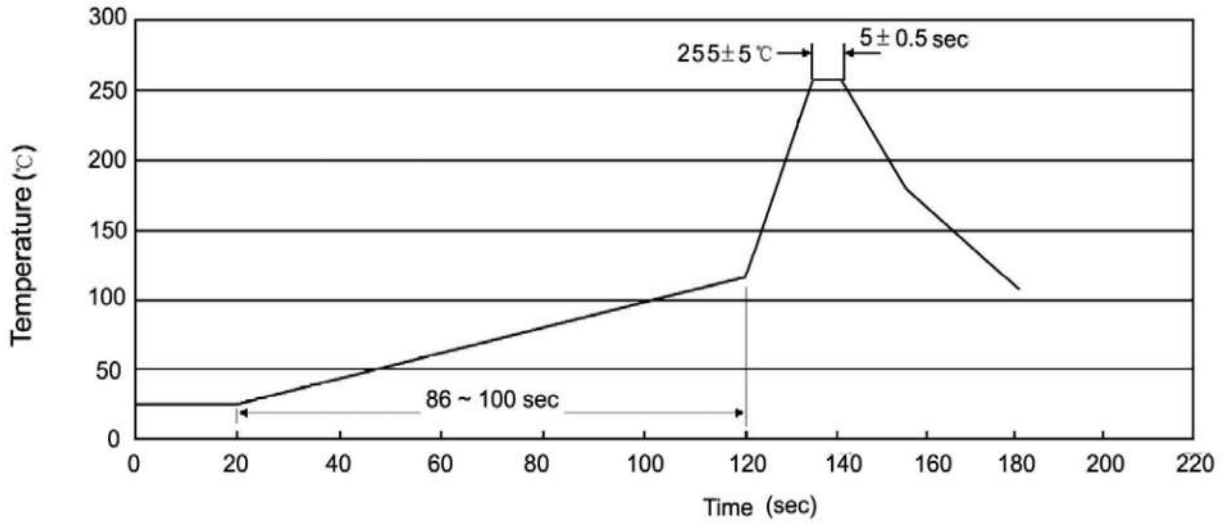
Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
C	4.3	4.7	b1	2.9	3.9
A	9.7	10.3	a	0.55	0.75
B	14.7	15.3	E	2.29	2.79
B1	3.8	4.0	E1	2.29	2.79
B2	2.9	3.1	C1	2.5	2.9
R	3.0	3.4	C2	2.5	2.7
b	12.5	13.5	c	0.5	0.7

印章说明 / Marking Instructions



说明：	
BR：	为公司代码
MBRF10100：	为产品型号
CT:	为内部结构
****：	为生产批号代码，随生产批号变化。
Note:	
BR:	Company Code
MBRF10100:	Product Type.
CT:	Internal Structure
****:	Lot No. Code, code change with Lot No.

波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)



说明：

1、预热温度 25～150℃，时间 60～90sec;

2、峰值温度 255±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:25~150℃, Time:60~90sec.

2.Peak Temp.:255±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

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

温度：270±5℃　　时间：10±1 sec.　　Temp.:270±5℃　　Time:10±1 sec

包装规格 / Packaging SPEC.

散件包装 / BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
TO-220/F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Tube 只/套管	Tubes/Inner Box 套管/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Tube 套管	Inner Box 盒	Outer Box 箱
TO-220/F	50	20	1,000	5	5,000	532×31.4×5.5	555×164×50	575×290×180

使用说明 / Notices