

# MBRD20200CT

Rev. A Jun.-2022

## 描述 / Descriptions

TO-252 塑封封装 肖特基二极管。

Schottky Barrier Diode in a TO-252 Plastic Package.

## 特征 / Features

损耗低，效率高，无卤产品。

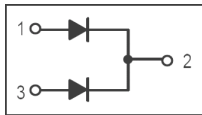
Low power loss, high efficiency, HF Product.

## 用途 / Applications

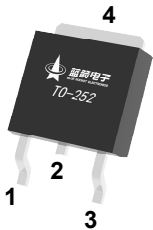
用于高频、低压、大电流整流二极管，续流二极管，保护二极管。

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 2,4: Cathode

PIN 3: Anode

## 印章代码 / Marking

见印章说明。 See Marking Instructions

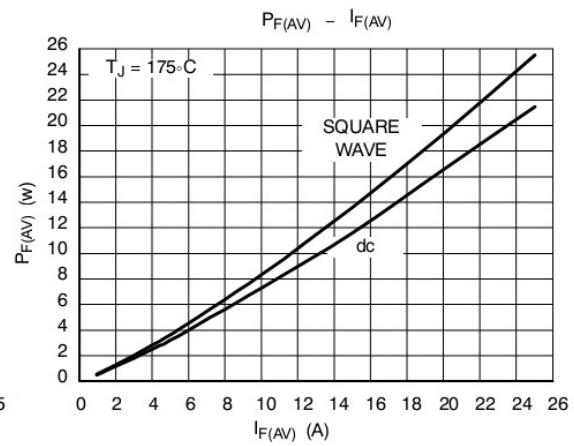
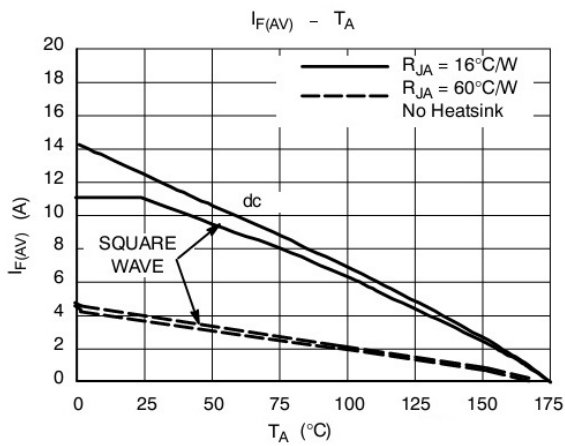
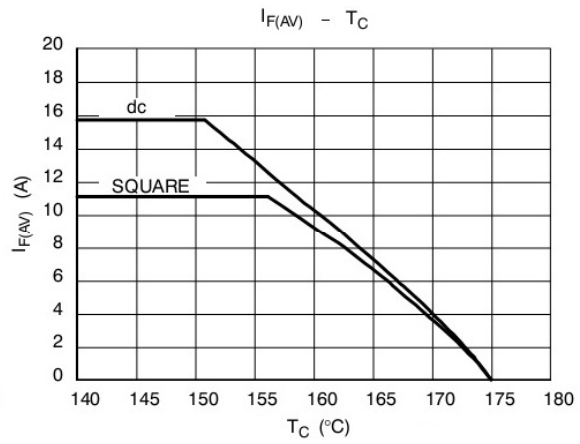
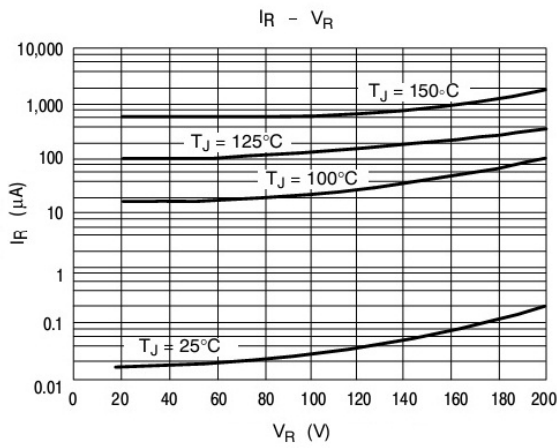
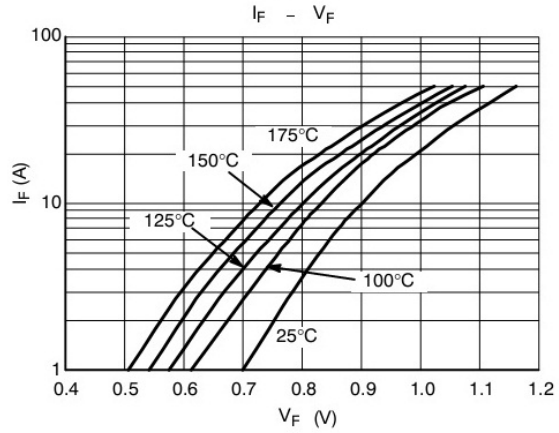
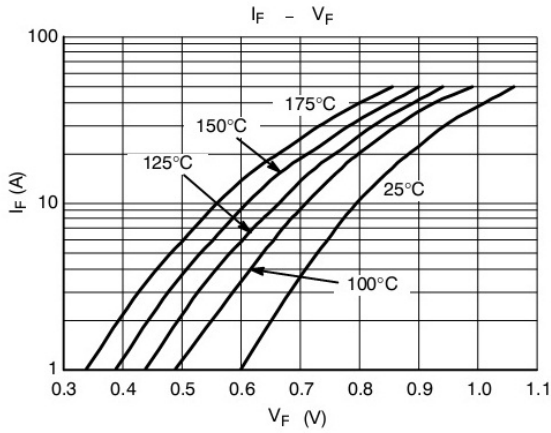
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	V
Working Peak Reverse Voltage	$V_{RWM}$	200	V
Peak Repetitive Forward Current	$I_{FRM}$	20	A
Average Rectified Forward Current	$I_{F(AV)}$	10	A
	$I_{F(AV)}^{(total)}$	20	A
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	150	A
Repetitive Peak Reverse Surge Current	$I_{RRM}$	1.0	A
Thermal Resistance Junction to Case	$R_{\theta Jc}$	2.0	°C/W
Junction Temperature Range	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-65~150	°C

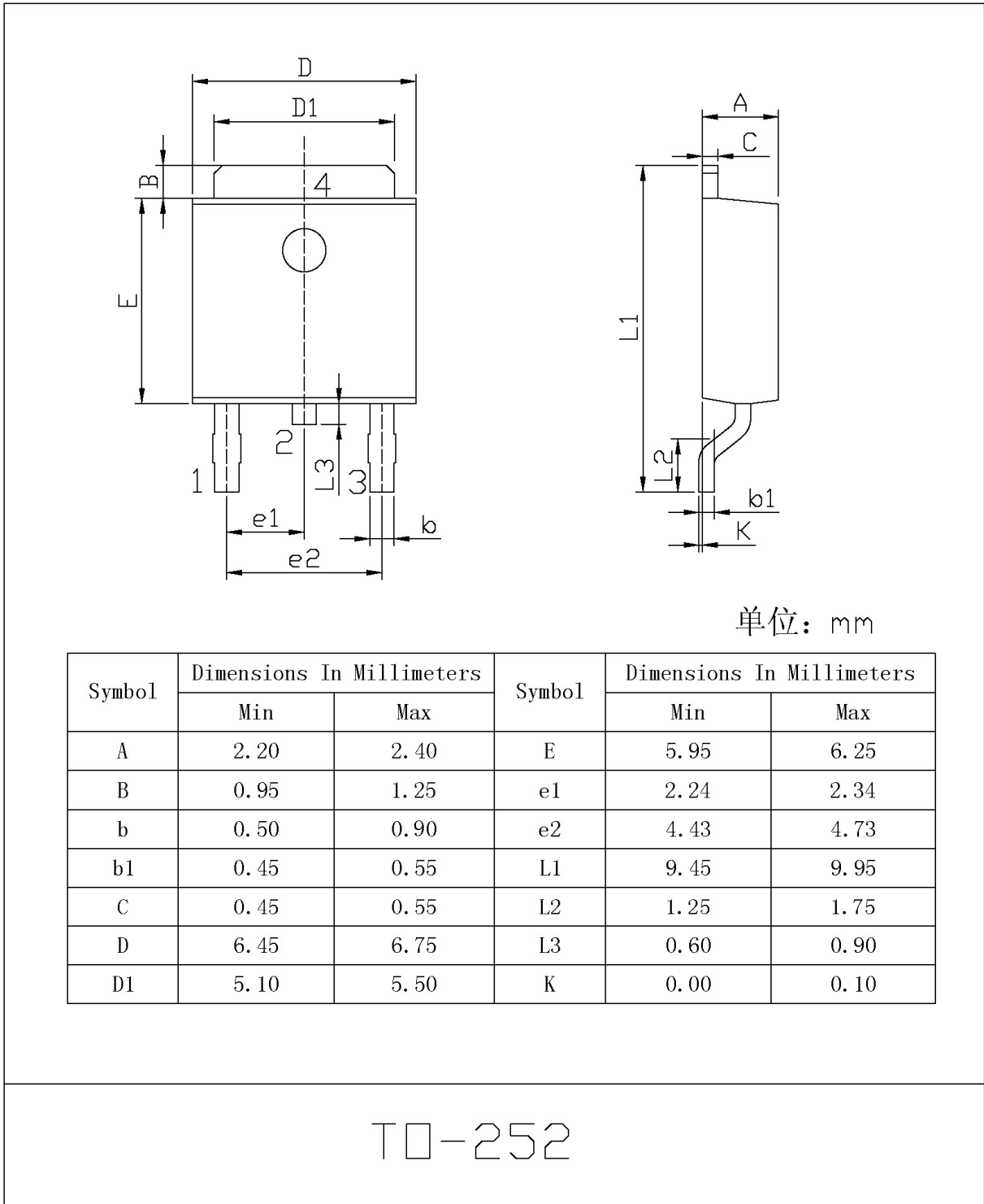
**电性能参数 / Electrical Characteristics(Ta=25°C)**

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
Forward Voltage	$V_F$	$I_F=10A(T_j=25^\circ C)$		0.8	0.9	V
		$I_F=10A(T_j=125^\circ C)$		0.66	0.8	V
		$I_F=20A(T_j=25^\circ C)$		0.89	1.0	V
		$I_F=20A(T_j=125^\circ C)$		0.76	0.9	V
Instantaneous Reverse Current	$I_R$	$V_R=200V(T_j=25^\circ C)$			1.0	mA
		$V_R=200V(T_j=125^\circ C)$		0.4	50	mA
Voltage Rate of Change	dv/dt				10000	V/μs

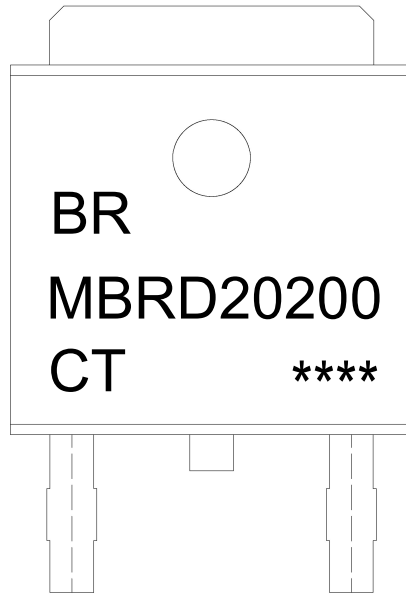
## 电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



## 印章说明 / Marking Instructions



说明：

BR： 为公司代码

MBRD20200： 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:

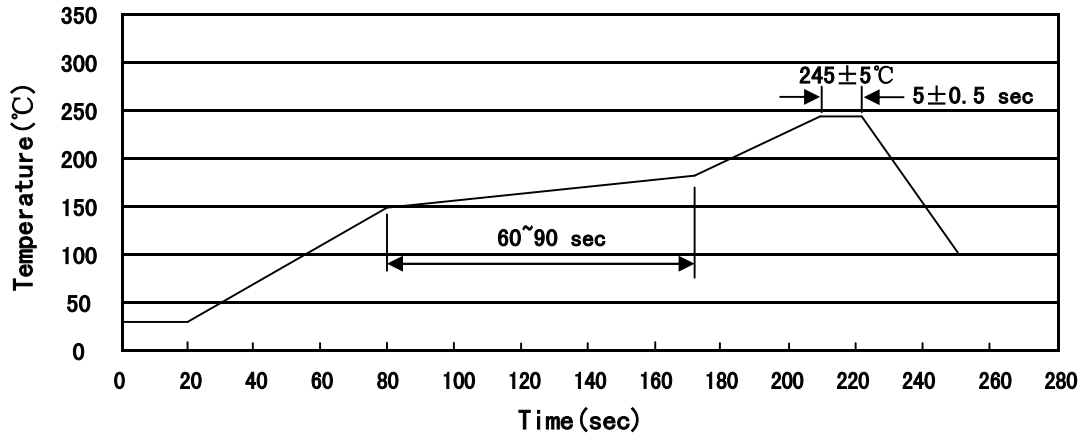
BR: Company Code

MBRD20200 : Product Type

CT: Internal Structure

\*\*\*\*: Lot No. Code, code change with Lot No

**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 150~180°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:150~180°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
TO-252	2,500	2	5,000	6	30,000	13" ×16	360×360×50	380×335×366

套管包装 / TUBE

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	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-251/252	75	48	3,600	5	18,000	526×20.5×5.25	555×164×50	575×290×180

**使用说明 / Notices**