

**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**

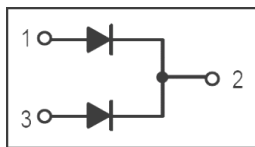
损耗低，效率高。

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

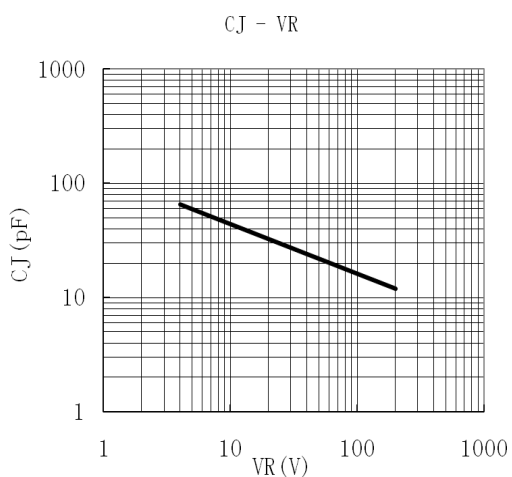
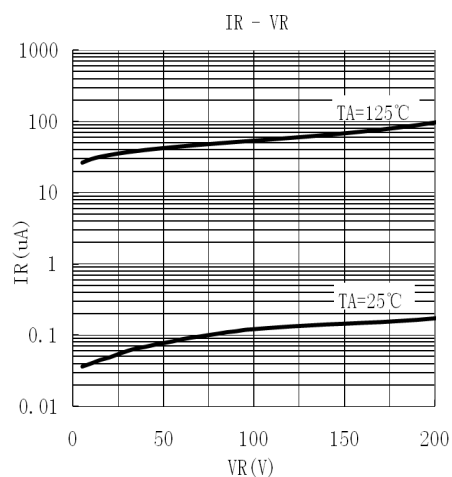
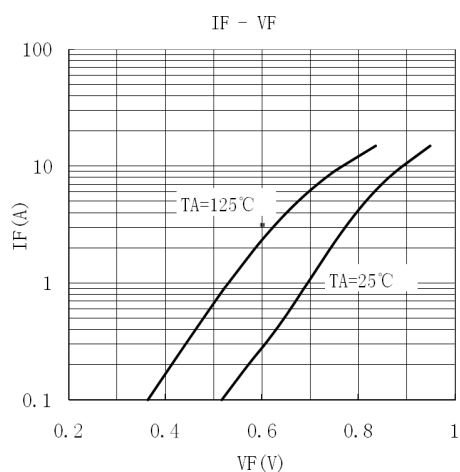
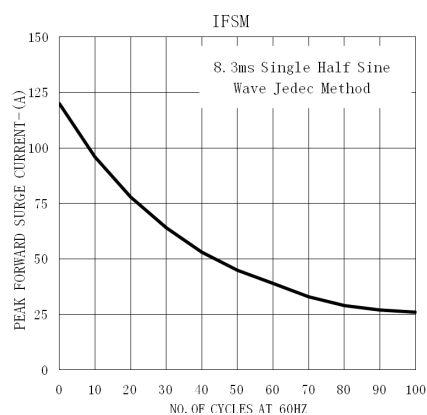
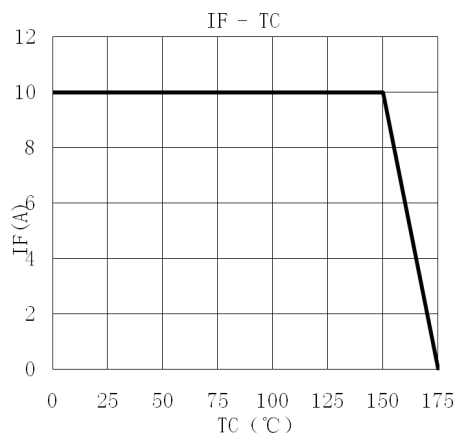
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter                        | 符号<br>Symbol    | 数值<br>Rating | 单位<br>Unit |
|----------------------------------------|-----------------|--------------|------------|
| Peak Repetitive Reverse Voltage        | $V_{RRM}$       | 200          | V          |
| Average Forward Current                | $I_{F(AV)}$     | 10           | A          |
| Reverse Forward Current                | $I_{FRM}$       | 10           | A          |
| Non Repetitive Peak Surge Current      | $I_{FSM}$       | 150          | A          |
| Peak Repetitive Reverse Current        | $I_{RRM}$       | 0.5          | A          |
| Thermal Resistance Junction to Case    | $R_{\theta JC}$ | 3.5          | °C/W       |
| Junction and Storage Temperature Range | $T_J, T_{stg}$  | -55~150      | °C         |

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

| 参数<br>Parameter                          | 符号<br>Symbol | 测试条件<br>Test Conditions     | 最小值<br>Min | 典型值<br>Typ | 最大值<br>Max | 单位<br>Unit |
|------------------------------------------|--------------|-----------------------------|------------|------------|------------|------------|
| Reverse Voltage                          | $V_R$        |                             | 200        |            |            | V          |
| Forward Voltage                          | $V_F$        | $I_F=5A$                    |            |            | 0.99       | V          |
|                                          |              | $I_F=5A(T_C=125^\circ C)$   |            |            | 0.87       | V          |
| Instantaneous Reverse Current            | $I_R$        | $V_R=200V$                  |            |            | 0.15       | mA         |
|                                          |              | $V_R=200V(T_C=125^\circ C)$ |            |            | 150        | mA         |
| Critical rate of rise of reverse voltage | dv/dt        |                             |            |            | 10000      | V/ $\mu s$ |

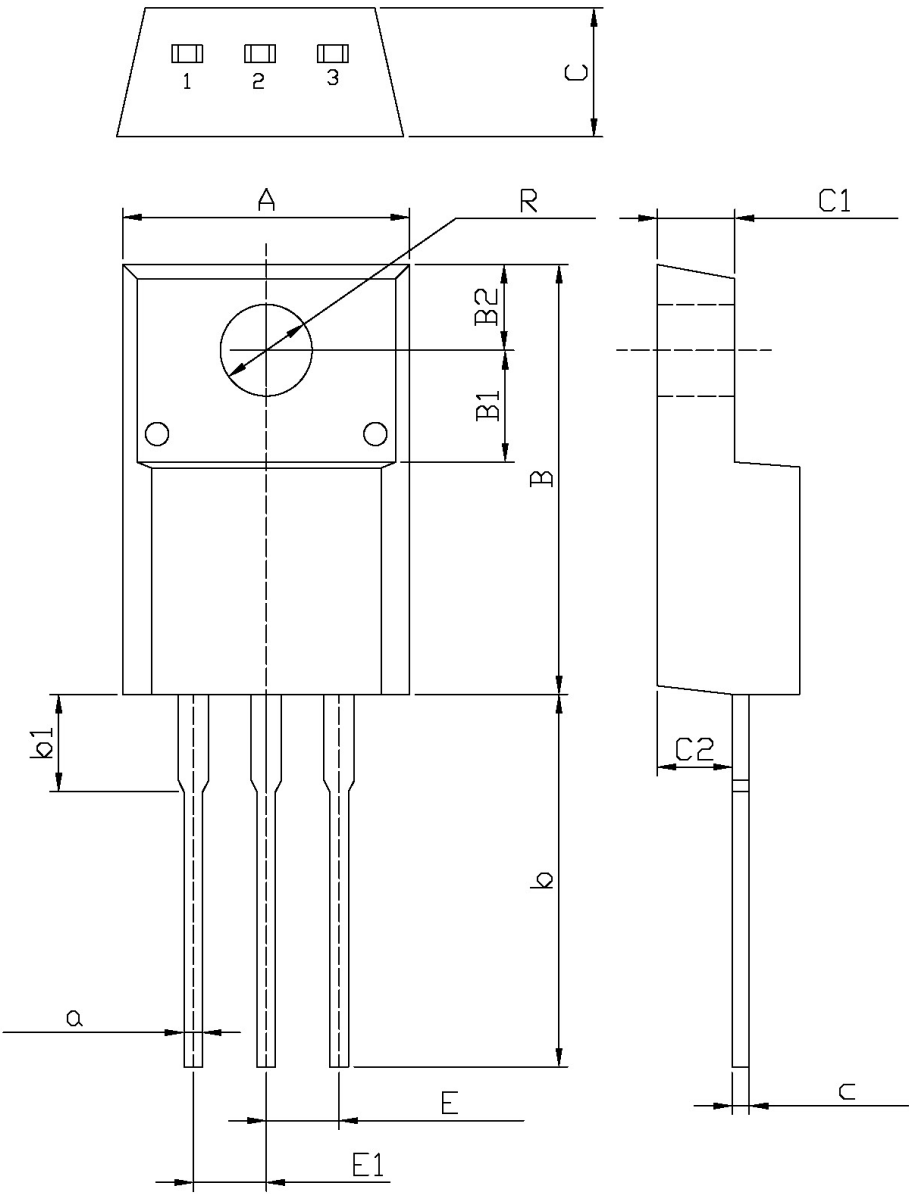
## 电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

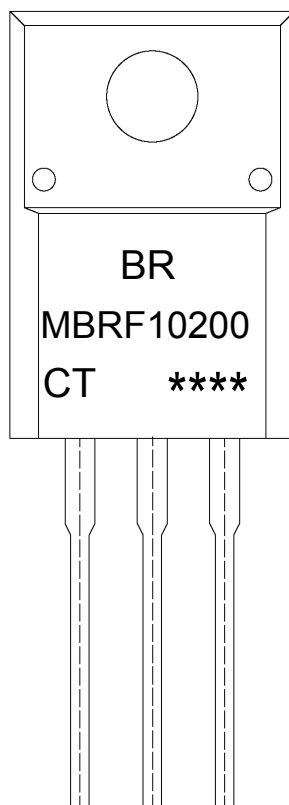
T□-220F

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

MBRF10200： 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。

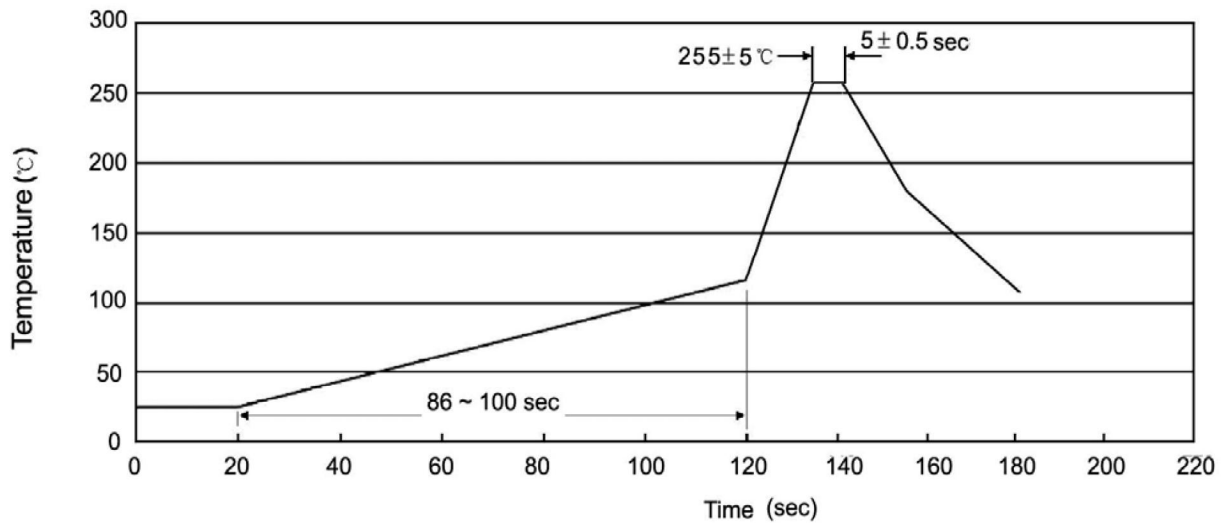
Note:

BR: Company Code

MBRF10200: 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°C，时间 60 ~ 90sec;
- 2、峰值温度 255±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.:255±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：270±5°C

时间：10±1 sec.

Temp.:270±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

散件包装 / BULK

| Package Type<br>封装形式 | Units 包装数量       |                       |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Bag<br>只/袋 | Bags/Inner Box<br>袋/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>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<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|-----------------------------------------|-------------|-------------|
|                      | Units/Tube<br>只/套管 | Tubes/Inner Box<br>套管/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>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**