

# MBRJ10150CT

Rev.E Mar.-2016

## 描述 / Descriptions

TO-220S 塑封封装 肖特基二极管。Schottky diode in a TO-220S Plastic Package.

## 特征 / Features

损耗低，效率高。

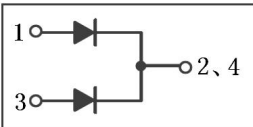
Low power loss, high efficiency.

## 用途 / Applications

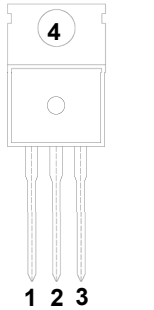
用于高频、低压、大电流整流二极管，续流二极管。

For high frequency, high voltage, high current rectifier diode, freewheeling diode.

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



PIN1 : Anode

PIN 2 : Cathode

PIN 3 : Anode

PIN 4 : NC

## 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<br>Working Peak Reverse Voltage<br>Reverse Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_{RM}$ | 150          | V          |
| RMS Reverse Voltage  | $V_{R(RMS)}$                       | 105          | V          |
| Average Rectified Forward Current  | $I_{F(AV)}$                        | 2*5          | A          |
| Non Repetitive Peak Surge Current  | $I_{FSM}$                          | 100          | A          |
| Thermal Resistance Junction to Case  | $R_{\theta Jc}$                    | 3.5          | °C/W       |
| Junction Temperature Range   | $T_{j MAX}$                        | 150          | °C         |
| Storage Temperature Range  | $T_{stg}$                          | -65~150      | °C         |

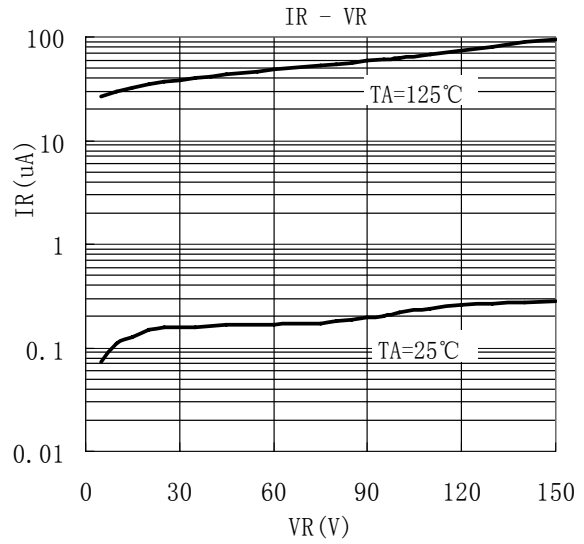
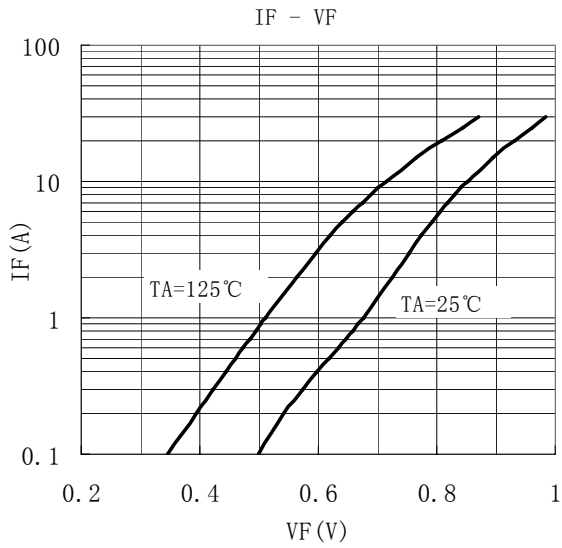
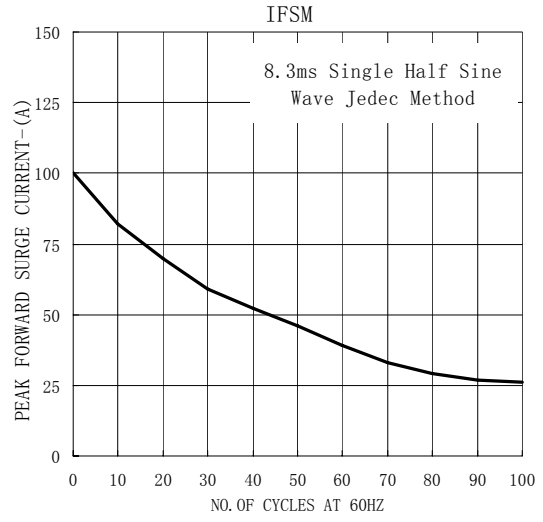
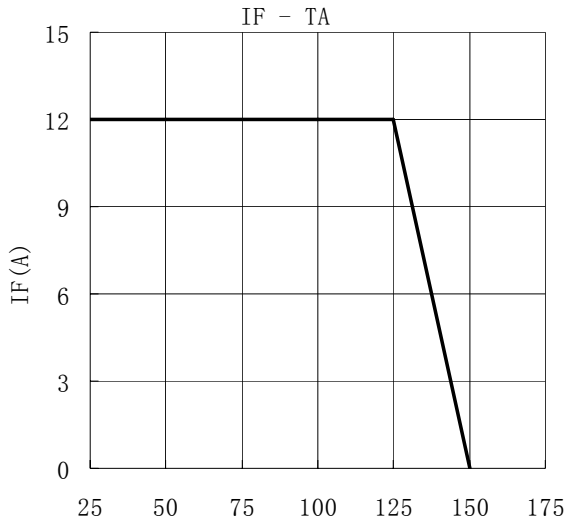
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 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               | $V_{(BR)R}$       | $I_R=0.3mA$                  | 150        |            |            | V          |
| Forward Voltage               | $V_F$             | $I_F=5A$ $T_j=25^\circ C$    |            |            | 0.85       | V          |
|                               |                   | $I_F=5A$ $T_j=125^\circ C$   |            |            | 0.70       | V          |
|                               |                   | $I_F=10A$ $T_j=25^\circ C$   |            |            | 0.95       | V          |
|                               |                   | $I_F=10A$ $T_j=125^\circ C$  |            |            | 0.75       | V          |
| Instantaneous Reverse Current | $I_R$<br>(Note 1) | $V_R=150V$ $T_j=25^\circ C$  |            |            | 10         | uA         |
|                               |                   | $V_R=120V$ $T_j=25^\circ C$  |            |            | 1          | mA         |
|                               |                   | $V_R=150V$ $T_j=125^\circ C$ |            |            | 5          | 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

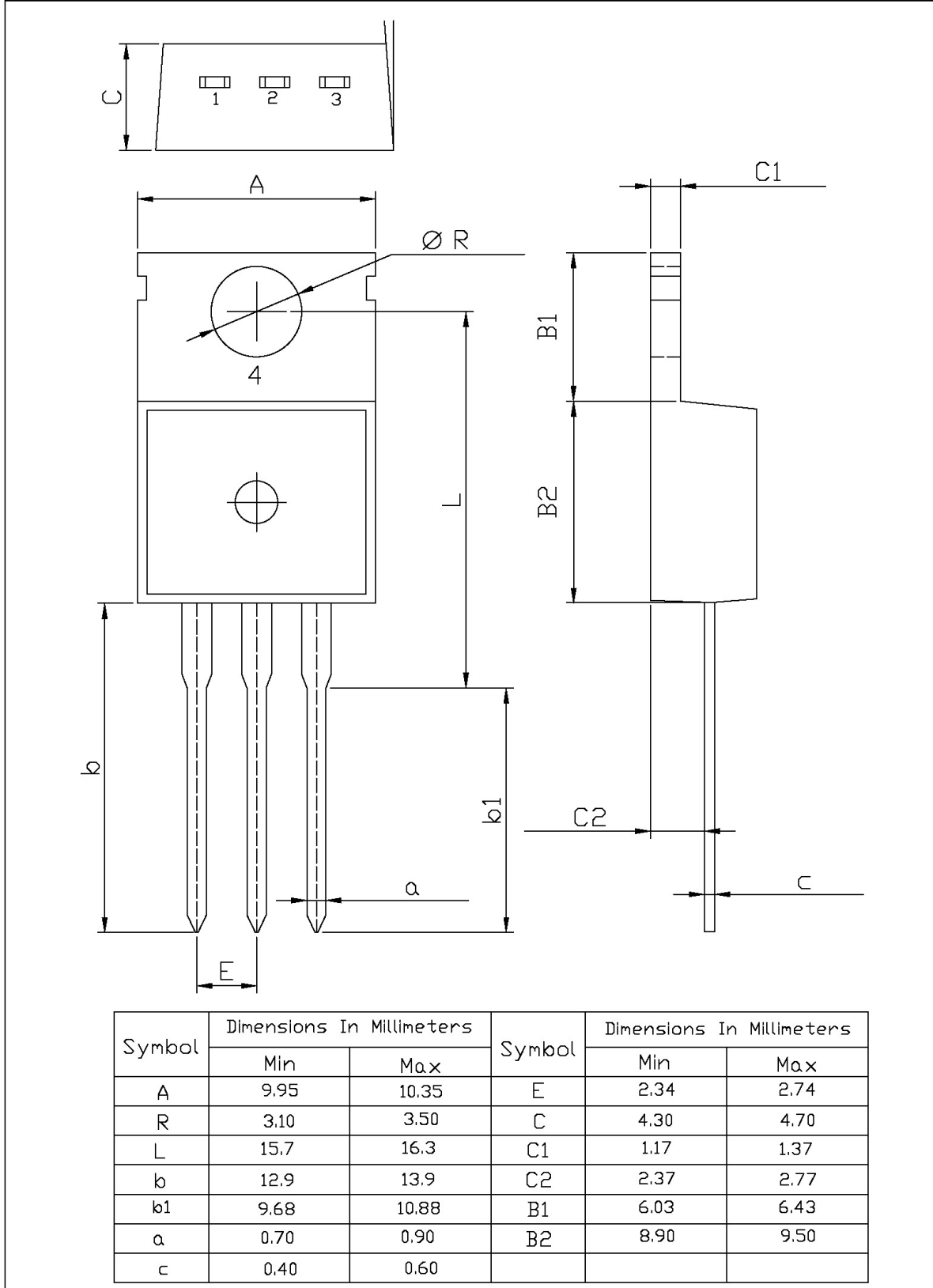
**电参数曲线图 / Electrical Characteristic Curve**



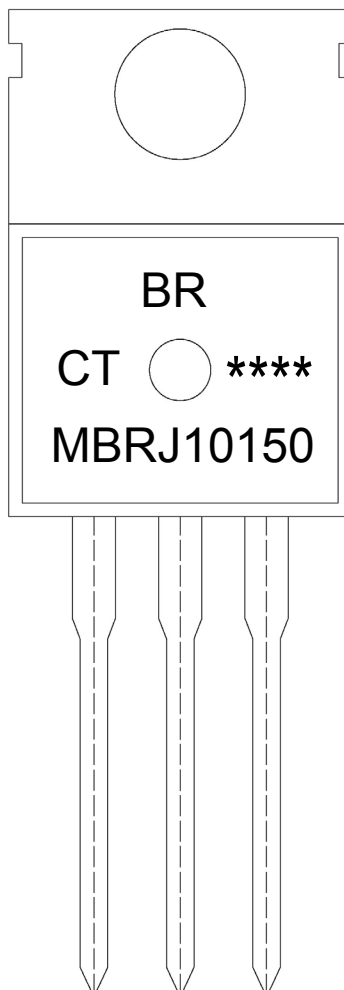
外形尺寸图 / Package Dimensions

TO-220S

Unit: mm



## 印章说明 / Marking Instructions



说明：

BR： 为公司代码

MBRJ10150： 为型号代码

CT： 为内部结构

\*\*\*\*： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

MBRJ10150 : 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.**

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-220S              | 50                 | 20                      | 1000                   | 5                            | 5000                   | 532×31.4×5.5                            | 555×164×50  | 575×290×180 |

**使用说明 / Notices**