

# MURJ1660CT

Rev.E Mar.-2016

## 描述 / Descriptions

TO-220S 塑料封装 超快恢复二极管。

Ultrafast Recovery Diode in a TO-220S Plastic Package.

## 特征 / Features

采用硅外延工艺生产的超快恢复二极管，具有较低的反向漏电和高可靠性。

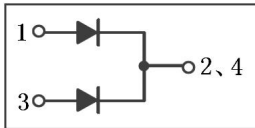
Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

## 用途 / Applications

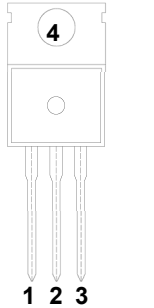
用于高频、高压、大电流整流二极管，续流二极管。

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     | $V_{RRM}$       | 600          | V          |
| RMS Voltage                         | $V_{RMS}$       | 420          | V          |
| DC Blocking Voltage                 | $V_{DC}$        | 600          | V          |
| Average Forward Current             | $I_F$           | 2×8          | A          |
| Non Repetitive Peak Surge Current   | $I_{FSM}$       | 125          | A          |
| Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 3.0          | °C/W       |
| Storage Temperature Range           | $T_j, T_{stg}$  | -55~150      | °C         |

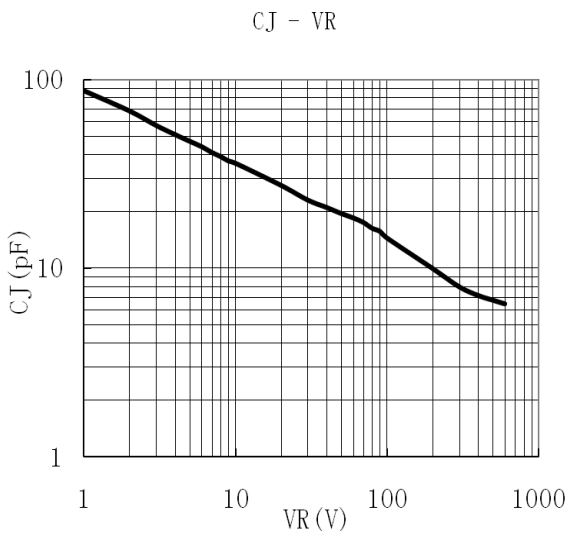
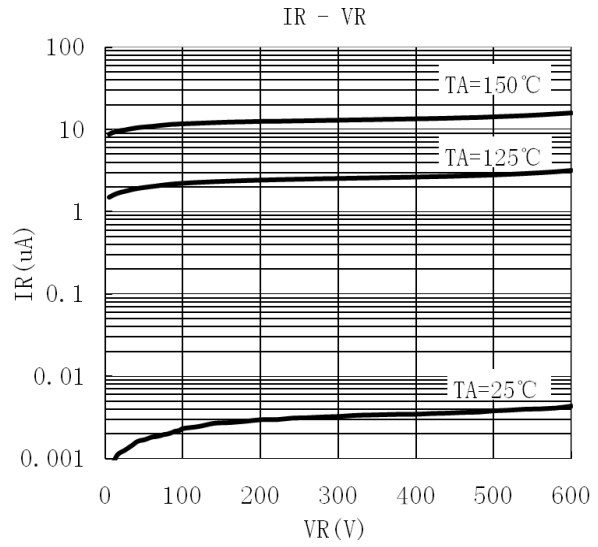
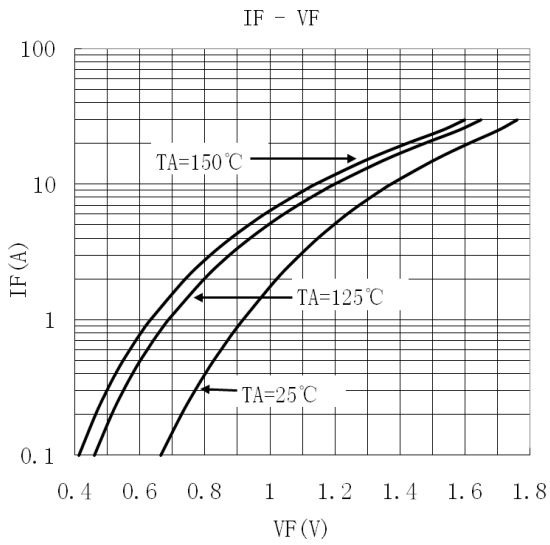
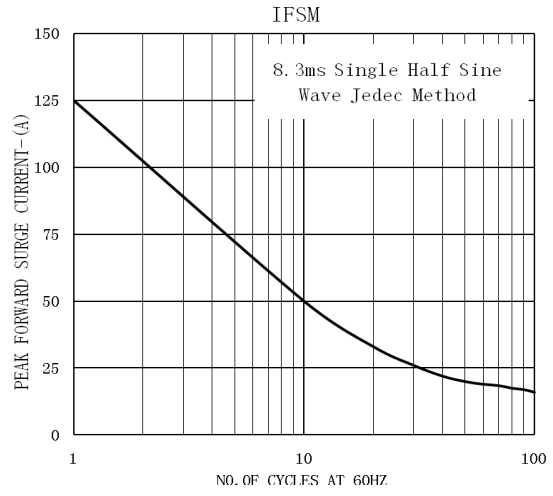
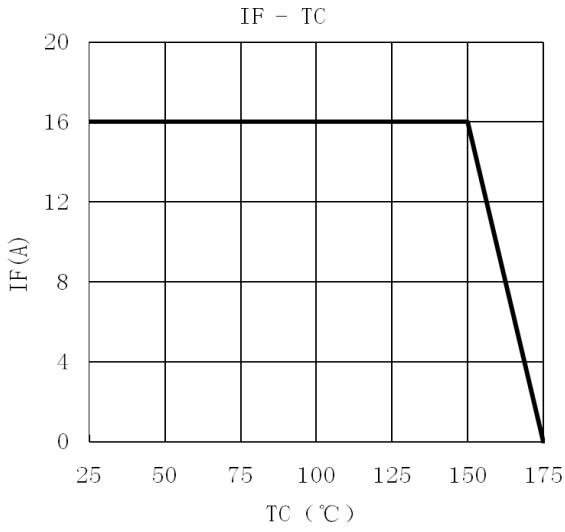
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 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 |
|-------------------------------|--------------|---|------------|------------|------------|------------|
| Forward Voltage               | $V_F$        | $I_F=8A(T_C=25^\circ C)$                |            |            | 1.8        | V          |
|                               |              | $I_F=8A(T_C=150^\circ C)$               |            | 1.05       | 1.3        | V          |
|                               |              | $I_F=16A(T_C=125^\circ C)$              |            |            | 2.0        | V          |
|                               |              | $I_F=16A(T_C=150^\circ C)$              |            | 1.28       | 1.6        | V          |
| Instantaneous Reverse Current | $I_R$        | $V_R=600V(T_a=25^\circ C)$              |            |            | 5          | $\mu A$    |
|                               |              | $V_R=600V(T_a=150^\circ C)$             |            | 16         | 100        | $\mu A$    |
| Reverse Recovery Time         | $t_{rr}$     | $I_F=0.5A$ $I_R=1.0A$<br>$I_{RR}=0.25A$ |            |            | 50         | ns         |

**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

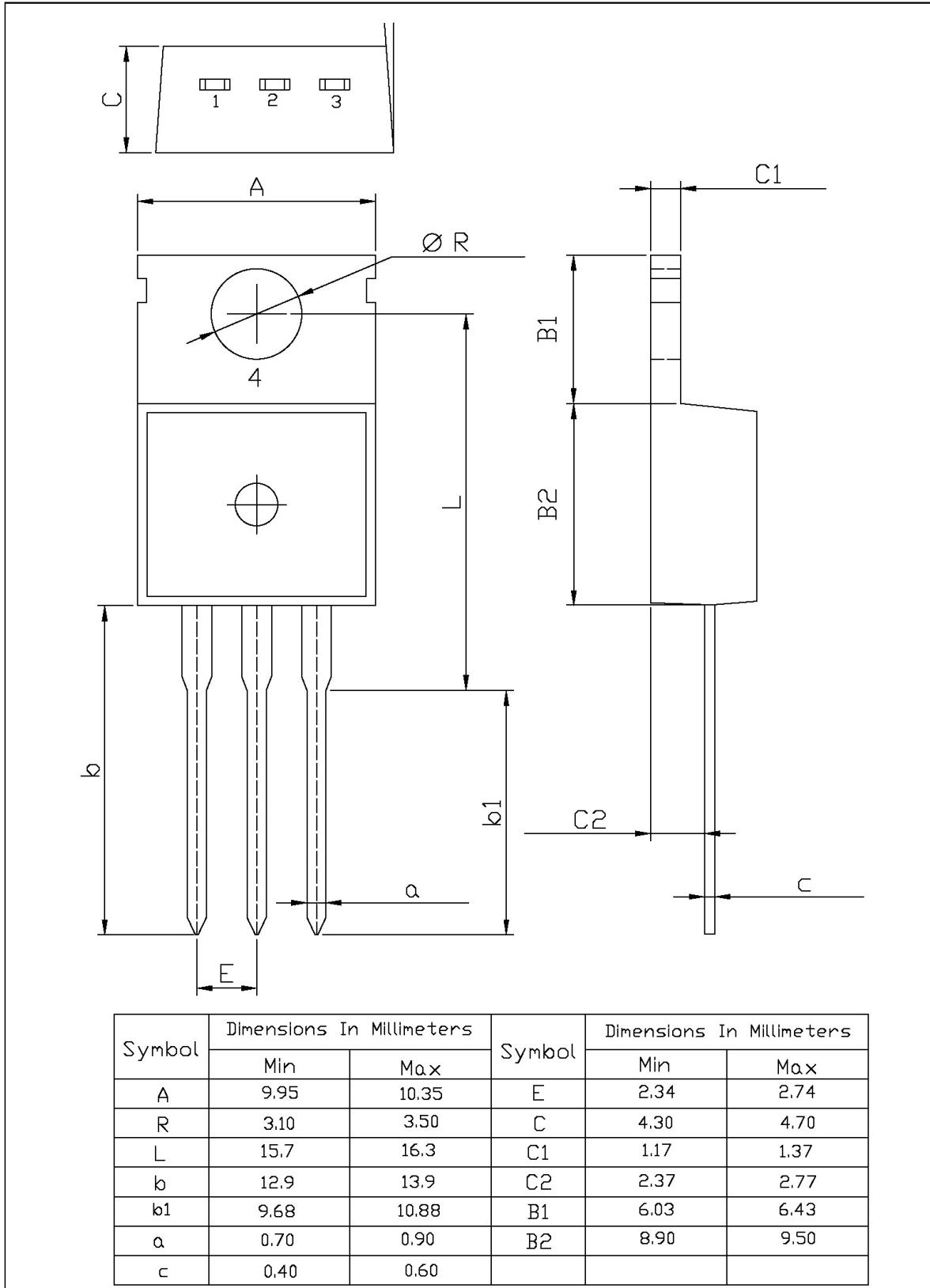
**电参数曲线图 / Electrical Characteristic Curve**



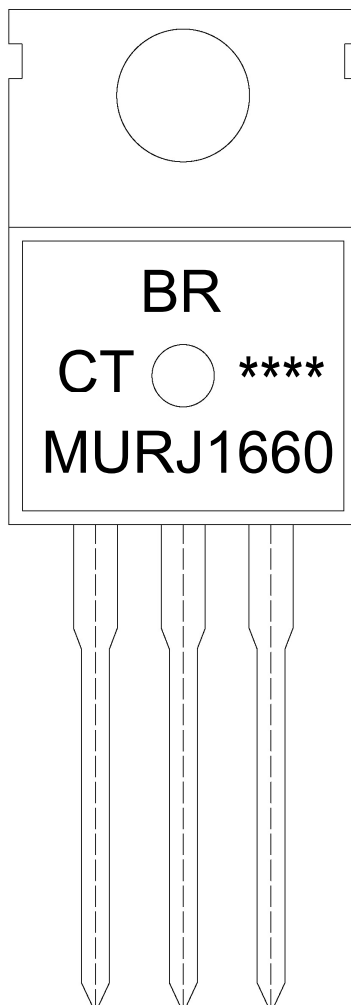
外形尺寸图 / Package Dimensions

TO-220S

Unit: mm



## 印章说明 / Marking Instructions



说明：

BR： 为公司代码

MURJ1660： 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

MURJ1660: 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**