

# BRMUR1040CTBD

Rev.A .Jan.-2018

## 描述 / Descriptions

TO-263 塑封封装 超快恢复二极管。

Ultrafast Recovery Diode in a TO-263 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。

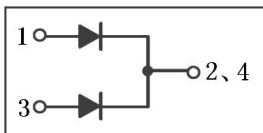
Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

## 用途 / Applications

用于高频、高压、大电流整流二极管，续流二极管，PFC 电路。

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

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



PIN1 : Anode

PIN 2、 4 : Cathode

PIN 3 : Anode

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

见印章说明。 See Marking Instructions.

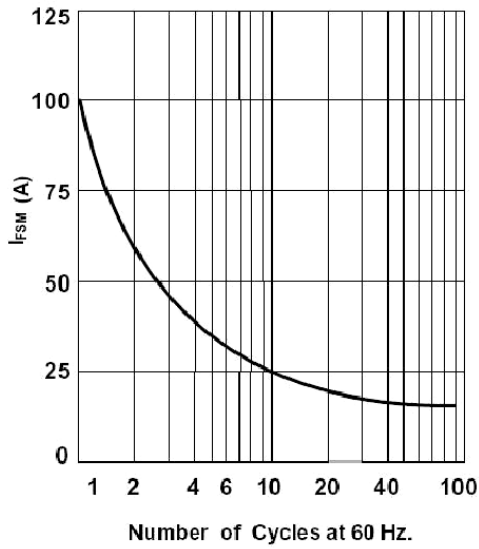
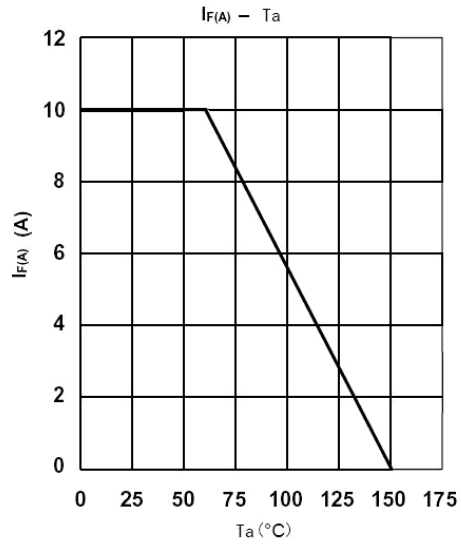
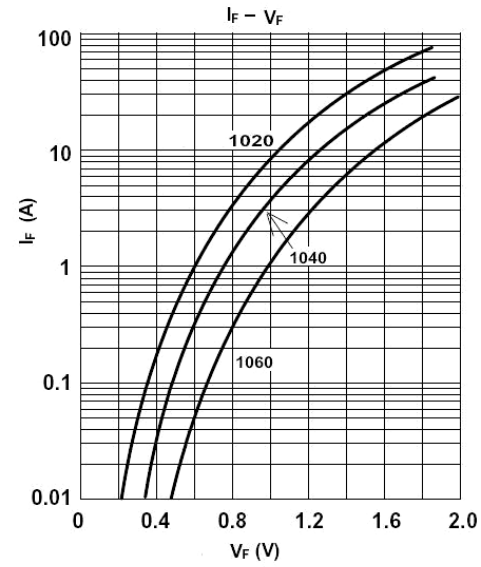
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter                             | 符号<br>Symbol    | 数值<br>Rating | 单位<br>Unit |
|---|-----------------|--------------|------------|
| Peak Repetitive Reverse Voltage             | $V_{RRM}$       | 400          | V          |
| RMS Voltage                                 | $V_{RMS}$       | 280          | V          |
| DC Blocking Voltage                         | $V_{DC}$        | 400          | V          |
| Peak Repetitive Forward Current             | $I_F$           | 10           | A          |
| Non Repetitive Peak Surge Current           | $I_{FSM}$       | 100          | A          |
| Maximum Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 2.8          | °C/W       |
| Storage Temperature Range                   | $T_{stg}$       | -55~150      | °C         |

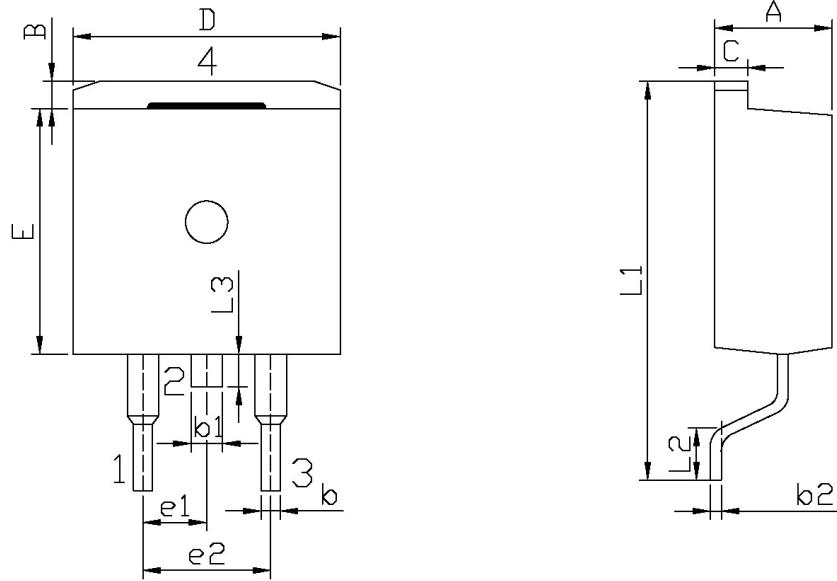
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 参数<br>Parameter               | 符号<br>Symbol | 测试条件<br>Test Conditions                  | 数值<br>Rating | 单位<br>Unit |
|-------------------------------|--------------|--|--------------|------------|
| Forward Voltage               | $V_F$        | $I_F=5A$ $T_c=25^\circ C$                | 1.3          | V          |
| Instantaneous Reverse Current | $I_R$        | $V_R=400V$<br>$T_a=25^\circ C$           | 10           | $\mu A$    |
|                               |              | $V_R=400V$<br>$T_a=125^\circ C$          | 250          | $\mu A$    |
| Reverse Recovery Time         | $t_{rr}$     | $I_F=0.5A$ $I_R=1.0A$<br>$I_{REC}=0.25A$ | 50           | ns         |

## 电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

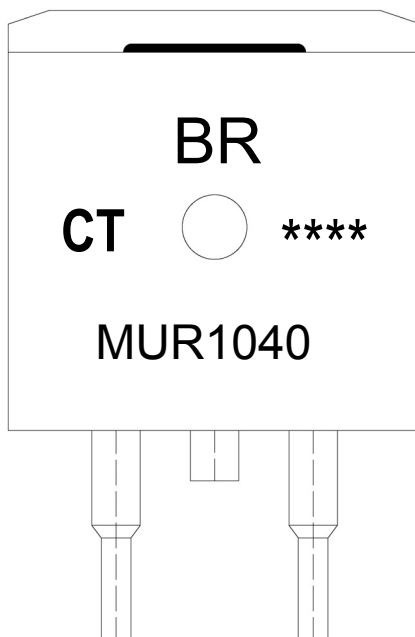


单位: mm

| Symbol | Dimensions In Millimeters |       | Symbol | Dimensions In Millimeters |       |
|--------|---------------------------|-------|--------|---------------------------|-------|
|        | Min                       | Max   |        | Min                       | Max   |
| A      | 4.30                      | 4.70  | E      | 9.00                      | 9.40  |
| B      | 1.00                      | 1.40  | e1     | 2.34                      | 2.74  |
| b      | 0.70                      | 0.90  | e2     | 4.88                      | 5.28  |
| b1     | 1.15                      | 1.35  | L1     | 15.00                     | 16.00 |
| b2     | 0.40                      | 0.60  | L2     | 2.24                      | 2.84  |
| C      | 1.20                      | 1.40  | L3     | 1.20                      | 1.60  |
| D      | 9.80                      | 10.20 |        |                           |       |

TO-263

## 印章说明 / Marking Instructions



说明：

BR： 为公司代码

MUR1040： 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

MUR1040: 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.**

卷盘包装 / REEL

| Package Type<br>封装形式 | Units 包装数量         |                         |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
|                      | Units/Reel<br>只/卷盘 | Reels/Inner Box<br>卷盘/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>只/箱 | Reel                                    | Inner Box 盒 | Outer Box 箱 |
| TO-263               | 800                | 1                       | 800                    | 5                            | 4,000                  | 13" ×24                                 | 360×360×50  | 385×257×392 |

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-263               | 50                 | 20                      | 1,000                  | 5                            | 5,000                  | 532×33×7.0                              | 555×164×50  | 575×290×180 |

**使用说明 / Notices**