

描述 / Descriptions

TO-220AC 塑封封装 超快恢复二极管。
Ultrafast Recovery Diode in a TO-220AC Plastic Package.

特征 / Features

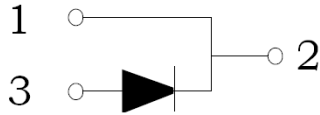
极快的恢复时间，采用 TO-220AC 封装，极低的正向压降，极小的反向漏电流，600V 耐压。
Ultrafast recovery time, popular TO-220AC package, low forward voltage, low leakage current, reverse voltage to 600V.

用途 / Applications

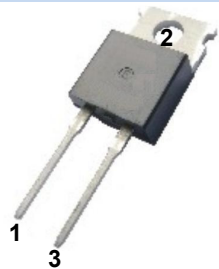
该产品可用于高频脉宽调制电路中的输出整流和续流，因其具有反向恢复电荷少恢复时间快的特点，所以能明显减少电路的开关损耗。

These devices are intended for output rectifiers and flywheel diodes in a variety of high-frequency pulse-width modulated switching regulators. Their low stored charge and attendant fast reverse-recovery behavior minimize electrical noise generation and in many circuits markedly reduce the turn-on dissipation of associated power switching transistors.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1、2 : Cathode

PIN 3 : Anode

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

见印章说明。 See Marking Instructions

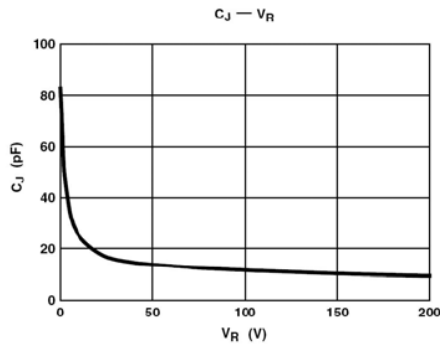
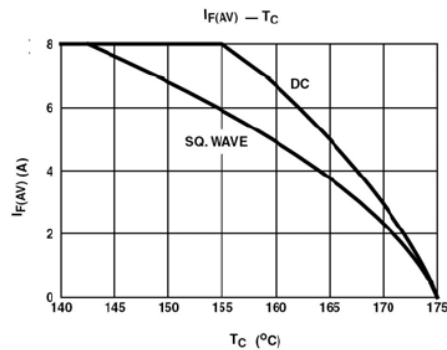
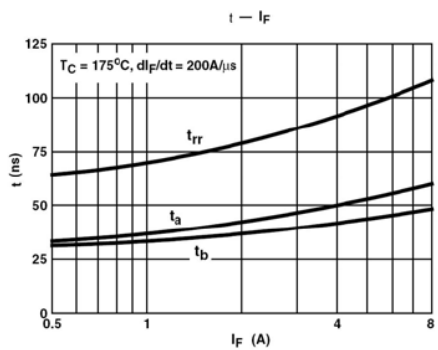
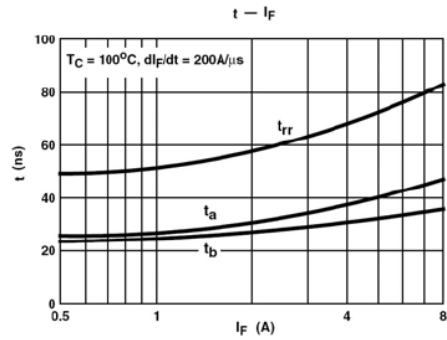
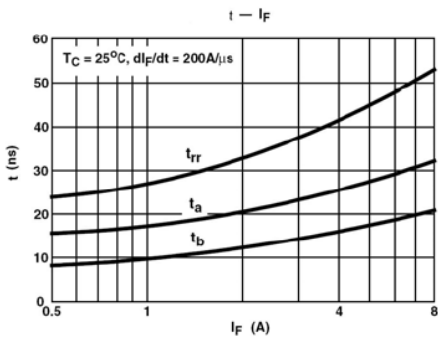
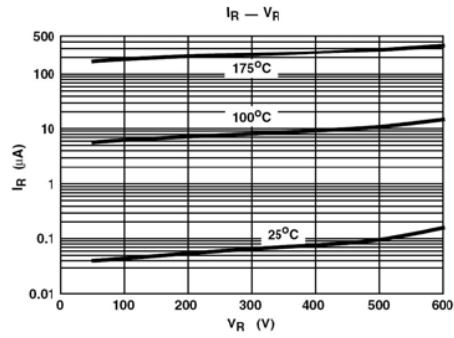
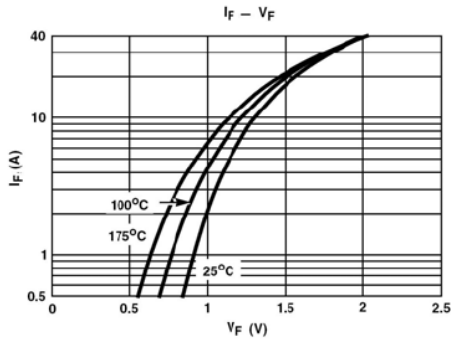
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|-----------------------------------|-------------------------|--------------|------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 600 | V |
| Working Peak Reverse Voltage | V_{RWM} | 600 | V |
| DC Blocking Voltage | V_R | 600 | V |
| Average Forward Current | I_F | 8 | A |
| Non Repetitive Peak Surge Current | I_{FRM} | 16 | A |
| Peak forward surge current | I_{FSM} | 100 | A |
| Power Dissipation | $P_{C(Tc=25^{\circ}C)}$ | 75 | W |
| Junction Temperature Range | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55~150 | °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 | $I_F=8A$ | | | 1.5 | V |
| | | $I_F=8A \quad T_C=150^{\circ}C$ | | | 1.2 | V |
| Instantaneous Reverse Current | I_R | $V_R=600V$ | | | 100 | μA |
| | | $V_R=600V \quad T_C=150^{\circ}C$ | | | 500 | μA |
| Reverse Recovery Time | t_{rr} | $I_F=1A \quad dI_F/dt=200A/\mu S$ | | | 60 | ns |
| | | $I_F=8A \quad dI_F/dt=200A/\mu S$ | | | 70 | ns |
| Time To Reach Peak Reverse forward current | t_a | $I_F=8A \quad dI_F/dt=200A/\mu S$ | | 32 | | ns |
| Time From Peak IRM Projected zero crossing of IRM based on a straight line peak through 25% | t_b | $I_F=8A \quad dI_F/dt=200A/\mu S$ | | 21 | | ns |
| Reverse Recovery charge | Q_{RR} | $I_F=8A \quad dI_F/dt=200A/\mu S$ | | 195 | | nC |
| Junction Capacitance | C_J | $V_R=10V \quad I_F=0A$ | | 25 | | pF |

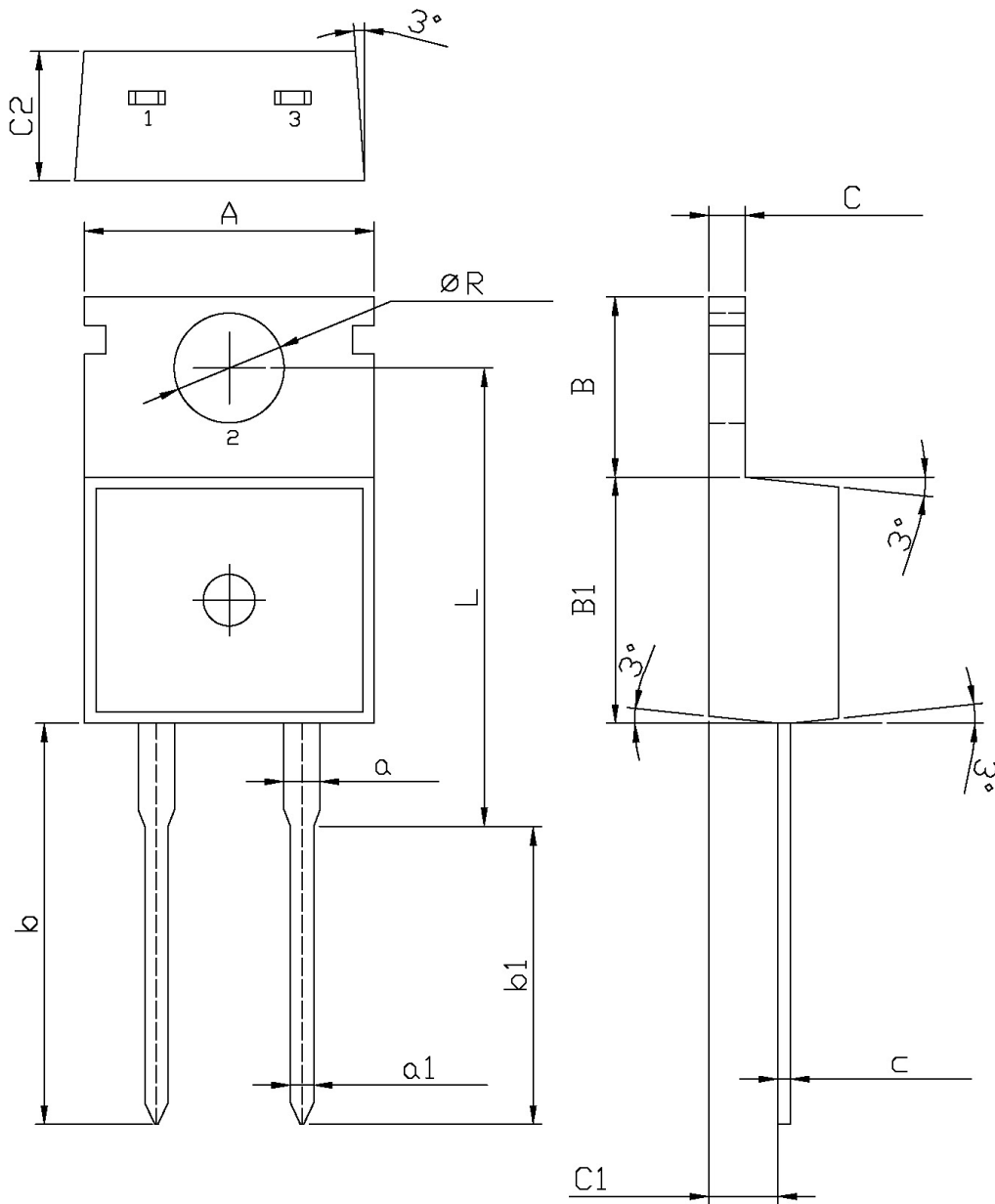
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

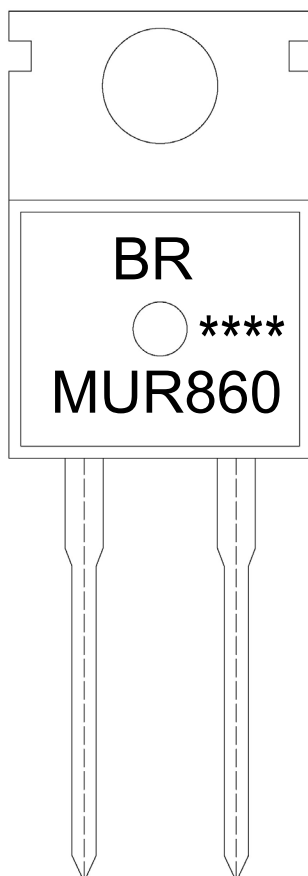
TO-220AC

Unit:mm



| Symbol | Dimensions In Millimeters | | Symbol | Dimensions In Millimeters | |
|--------|---------------------------|------|--------|---------------------------|-----|
| | Min | Max | | Min | Max |
| A | 9.8 | 10.2 | B | 6.3 | 6.7 |
| R | 3.56 | 3.64 | B1 | 9.0 | 9.4 |
| L | 15.7 | 16.1 | C1 | 2.2 | 2.6 |
| b | 12.6 | 13.6 | C | 1.2 | 1.4 |
| b1 | 9.6 | 10.6 | c | 0.4 | 0.6 |
| a | 1.22 | 1.32 | C2 | 4.3 | 4.7 |
| a1 | 0.7 | 0.9 | | | |

印章说明 / Marking Instructions



说明：

BR： 为公司代码

MUR860： 为型产品号

****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

MUR860: Product Type.

****: 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 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Bag 只/袋 | Bags/Inner Box 袋/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Bag 袋 | Inner Box 盒 | Outer Box 箱 |
| TO-220/F/AC | 200 | 10 | 2,000 | 5 | 10,000 | 135×190 | 237×172×102 | 560×245×195 |

套管包装 / TUBE

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | 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-220/F/AC | 50 | 20 | 1,000 | 5 | 5,000 | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

使用说明 / Notices