

LV20150CT

Rev.H Jul.-2018

描述 / Descriptions

TO-220 塑封封装 肖特基二极管。

Schottky Barrier Diode in a TO-220 Plastic Package.

特征 / Features

低正向压降，低功耗损失，高效率运行。

Low forward voltage drop, low power losses, High efficiency operation.

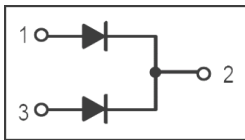
用途 / Applications

用于高频率逆变器，开关电源，续流二极管，OR-ing 二极管，DC-DC 转换器和电池反向保护。

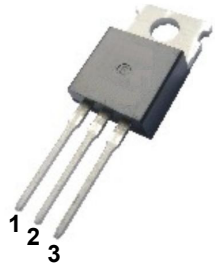
For use in high frequency inverters, switching power supplies, freewheeling diodes,

OR-ing diode, dc-to-dc converters and reverse battery protection.

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 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|--|-----------------------------------|---------------|------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RM} V_{RSM} V_{DC} | 150 | V |
| RMS Reverse Voltage | V_{RMS} | 105 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 2×10 | A |
| Non Repetitive Peak Surge Current | I_{FSM} | 120 | A |
| Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 2.8 | °C/W |
| Junction and Storage Temperature Range | T_j T_{stg} | -55~+150 | °C |

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

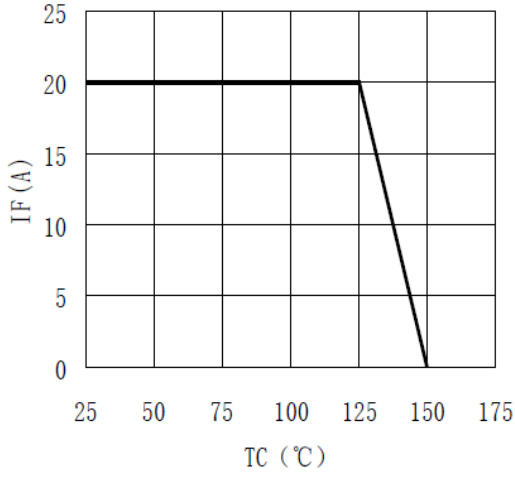
| 参数 Parameter | 符号 Symbol | 测试条件 Test Conditions | 最小值 Min | 典型值 Typ | 最大值 Max | 单位 Unit |
|-------------------------------|-------------------|----------------------------|------------|------------|------------|------------|
| Breakdown Reverse Voltage | V_{BR} | $I_R=1mA(Ta=25^\circ C)$ | 150 | | | V |
| Forward Voltage | V_F | $I_F=5A(Ta=25^\circ C)$ | | 0.74 | | V |
| | | $I_F=10A(Ta=25^\circ C)$ | | 0.84 | 0.95 | V |
| | | $I_F=5A(Ta=125^\circ C)$ | | 0.59 | | V |
| | | $I_F=10A(Ta=125^\circ C)$ | | 0.69 | 0.75 | V |
| Instantaneous Reverse Current | I_R (Note 1) | $V_R=150V(Ta=25^\circ C)$ | | | 50 | μA |
| | | $V_R=150V(Ta=125^\circ C)$ | | 3 | 10 | mA |

注/Notes:

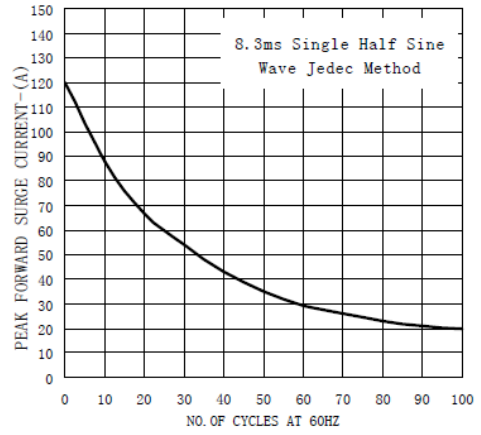
1. 使用极短的测试时间,以尽量减少自热效应。/Short duration pulse test used to minimize self-heating effect.
2. 除非特别注明,数值为一个芯片的参数。/ Unless otherwise noted, values for the parameters of a single chip

电参数曲线图 / Electrical Characteristic Curve

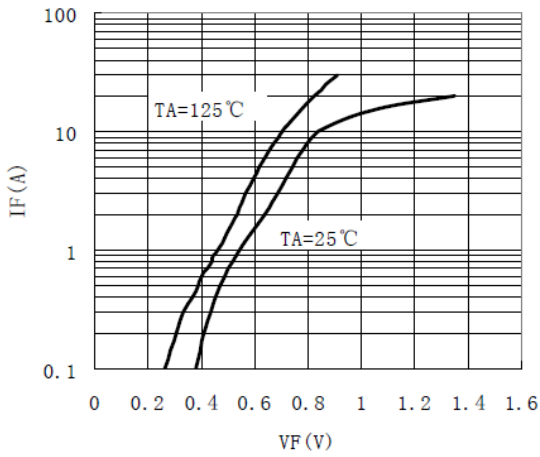
IF - TC



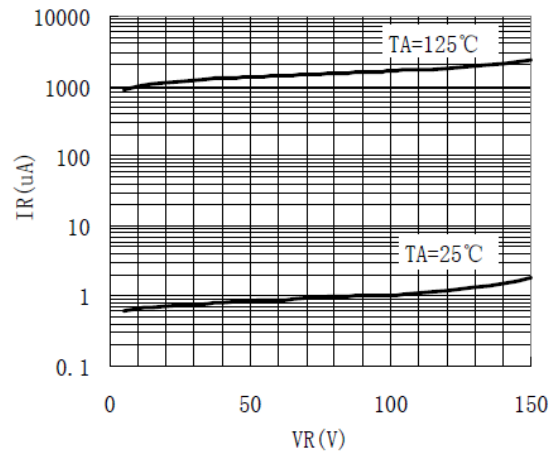
IFSM



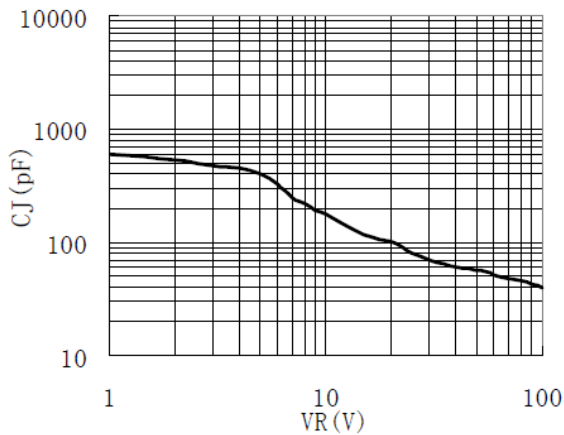
IF - VF



IR - VR



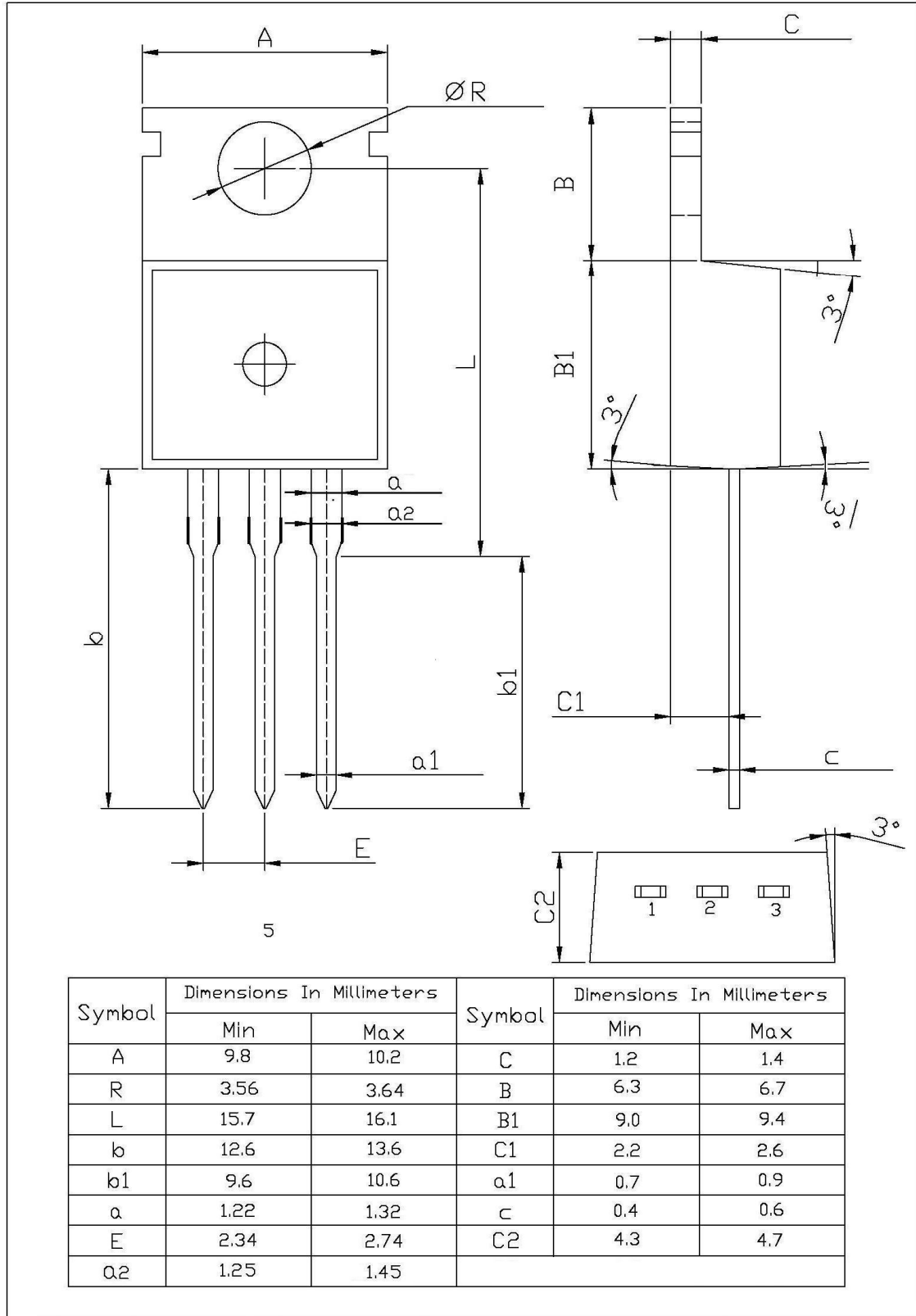
CJ - VR



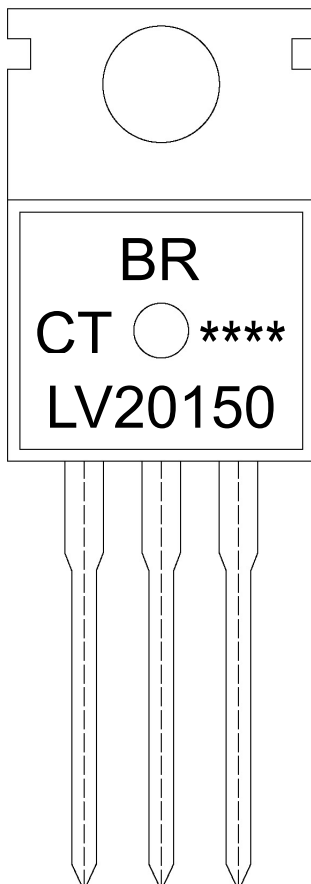
外形尺寸图 / Package Dimensions

TO-220

单位: mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码

LV20150： 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

LV20150 : 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 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 | 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 | 50 | 20 | 1,000 | 5 | 5,000 | 532×31.4×5.5 | 555×164×50 | 575×290×180 |

使用说明 / Notices