

# LV20150FCT

Rev.F Mar.-2016

## 描述 / Descriptions

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

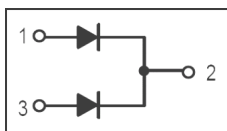
## 特征 / Features

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<br>Parameter   | 符号<br>Symbol                      | 数值<br>Rating  | 单位<br>Unit |
|---|-----------------------------------|---------------|------------|
| Recurrent Peak Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RM}$<br>$V_{RSM}$<br>$V_{DC}$ | 150           | V          |
| RMS Voltage   | $V_{RMS}$                         | 105           | V          |
| Average Rectified Forward Current   | $I_{F(AV)}$                       | $2 \times 10$ | A          |
| Non Repetitive Peak Surge Current   | $I_{FSM}$                         | 120           | A          |
| Thermal Resistance Junction to Case   | $R_{\theta Jc}$                   | 5.0           | °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<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 |
|-------------------------------|----------------|----------------------------|------------|------------|------------|------------|
| Breakdown 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         | $\mu A$    |
|                               |                | $V_R=150V(Ta=125^\circ C)$ |            | 3.0        | 10         | mA         |

注/Notes :

1. 使用极短的测试时间，以尽量减少自热效应。

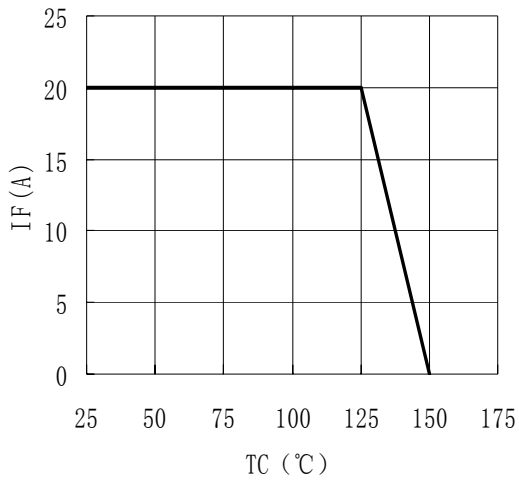
Short duration pulse test used to minimize self-heating effect.

2. 除非特别注明，数值为一个芯片的参数。

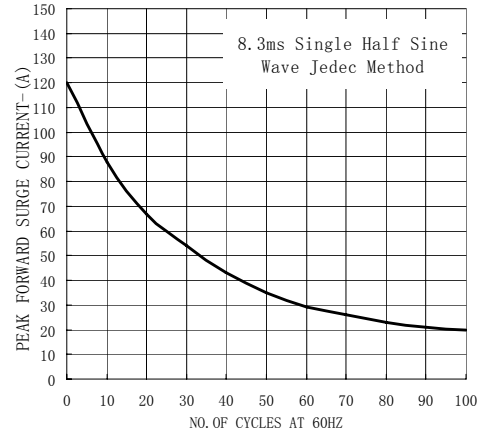
Unless otherwise noted, values for the parameters of a single chip

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

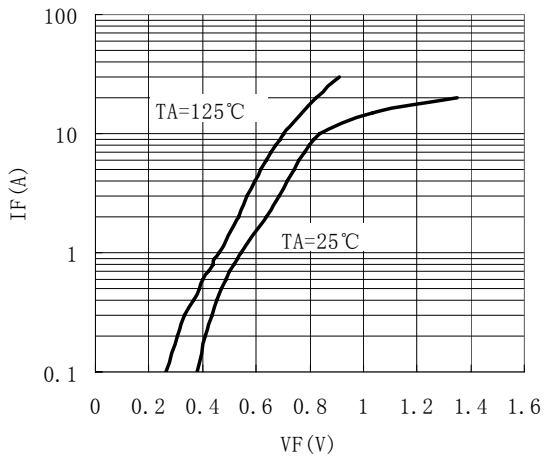
IF - TC



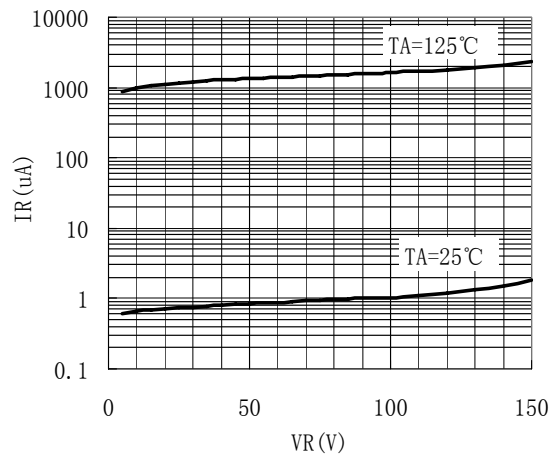
IFSM



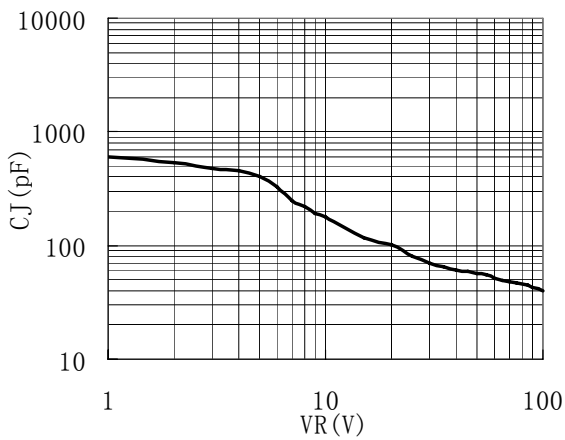
IF - VF



IR - VR



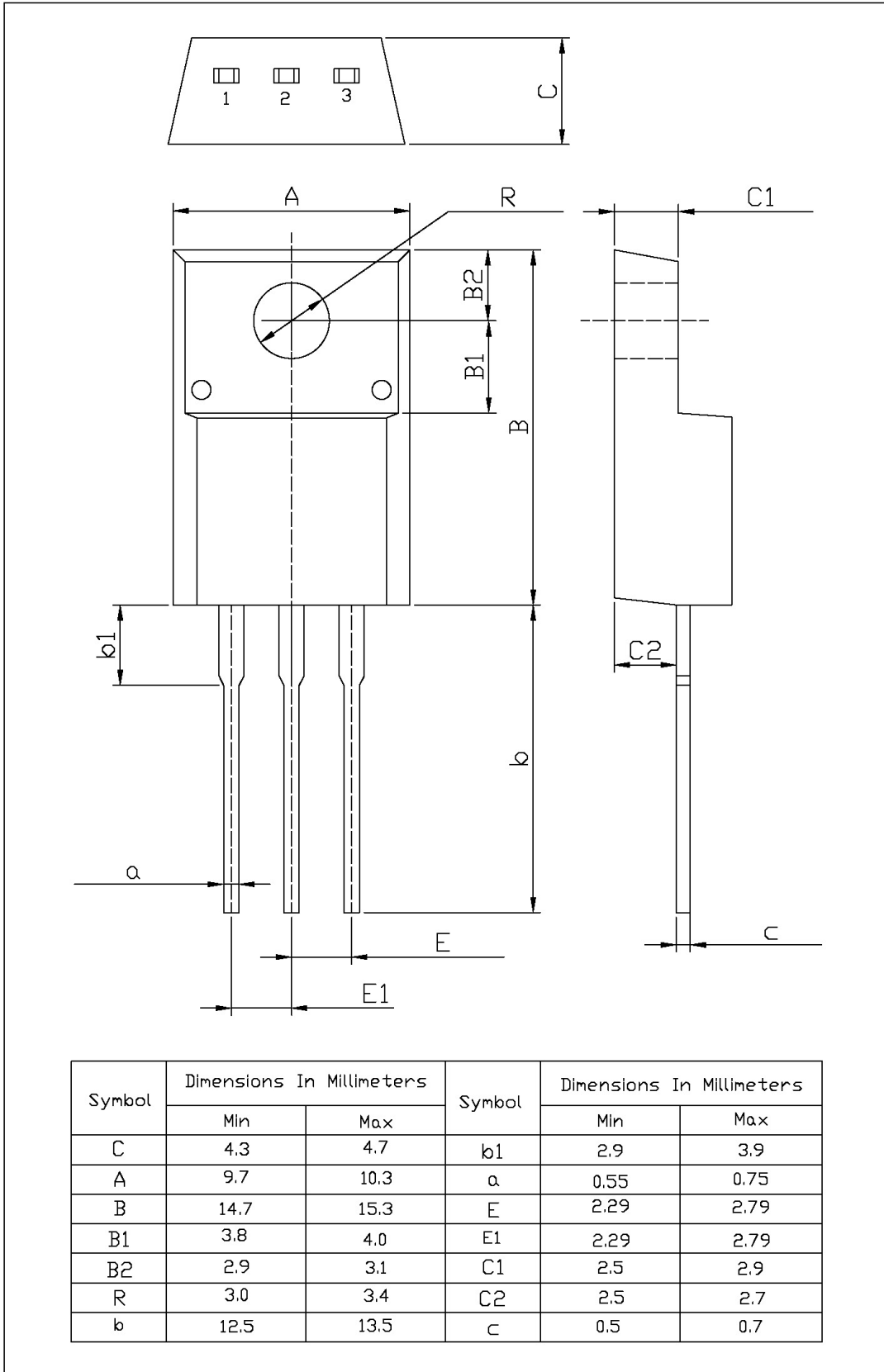
CJ - VR



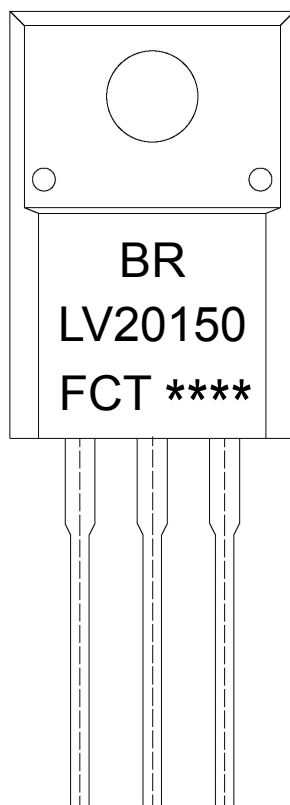
外形尺寸图 / Package Dimensions

TO-220F

单位: mm



## 印章说明 / Marking Instructions



说明：

BR： 为公司代码

LV20150： 为型号代码

F： 为封装代码

CT： 为内部结构

\*\*\*\*： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

LV20150: Product Type

F: Package Code

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<br>封装形式 | Units 包装数量       |                       |                        |                              |                        | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |             |             |
|----------------------|------------------|-----------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
|                      | Units/Bag<br>只/袋 | Bags/Inner Box<br>袋/盒 | Units/Inner Box<br>只/盒 | Inner Boxes/Outer Box<br>盒/箱 | Units/Outer Box<br>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<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-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**