

LV40150PT

Rev.F Mar.-2016

描述 / Descriptions

TO-3P 塑封封装 肖特基二极管。

Schottky Barrier Diode in a TO-3P Plastic Package.

特征 / Features

低正向压降，低功耗损失，效率高。

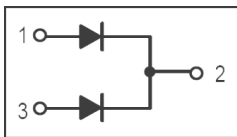
Low forward voltage drop, low power losses, High efficiency operation.

用途 / Applications

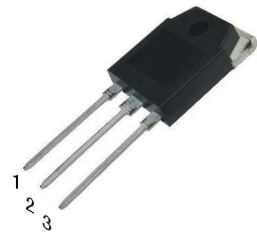
用于高频率逆变器，开关电源，续流二极管，OR-ing 二极管，DC-DC 转换器和电池反向保护。

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_{RRM} V_{RWM} V_{DC} | 150 | V |
| RMS Reverse Voltage | V_{RMS} | 105 | V |
| Average forward current | $I_{F(AV)}$ | 2×20 | A |
| Non-Repetitive Peak Forward Surge Current | I_{FSM} | 300 | A |
| Thermal Resistance Junction to Ambient case | $R_{\theta Jc}$ | 1.4 | °C/W |
| Junction and Storage Temperature Range | T_j T_{stg} | -40~+150 | °C |

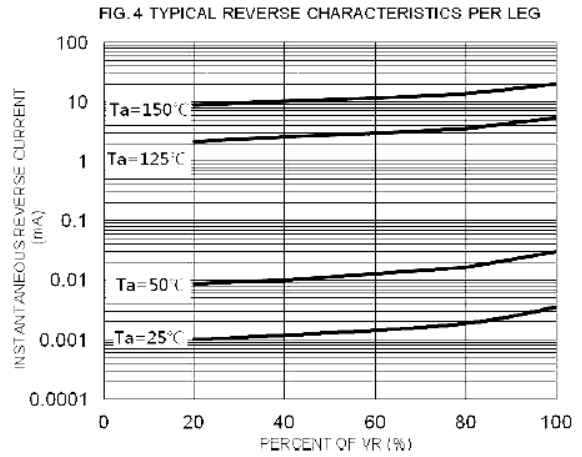
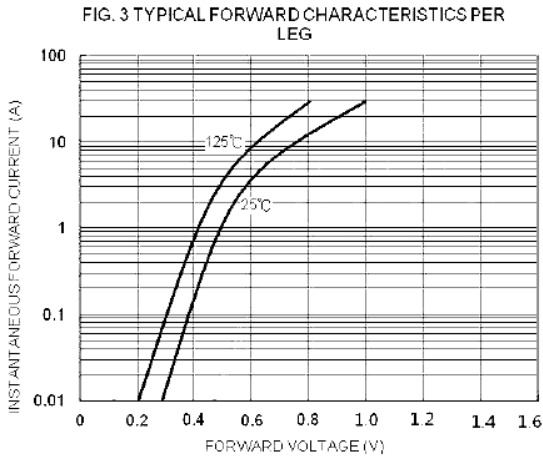
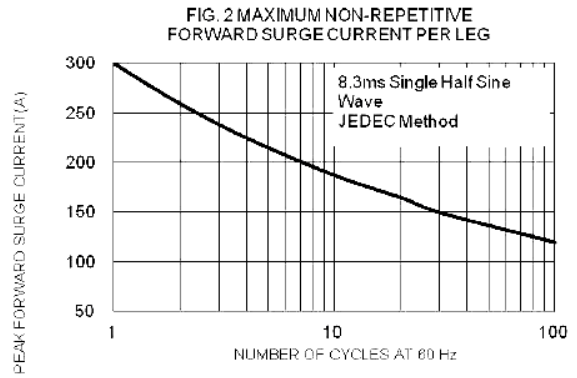
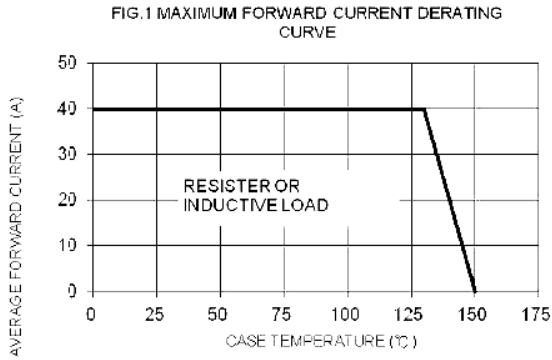
电性能参数 / Electrical Characteristics(Ta=25°C)

| 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 |
|---|----------------|----------------------------|------------|------------|------------|------------|
| Reverse Breakdown Voltage | V_{BR} | $I_R=1mA(Ta=25^\circ C)$ | 150 | | | V |
| Forward Voltage | V_F | $I_F=5A(Ta=25^\circ C)$ | | 0.68 | | V |
| | | $I_F=10A(Ta=25^\circ C)$ | | 0.76 | | V |
| | | $I_F=20A(Ta=25^\circ C)$ | | 0.89 | 1.05 | V |
| | | $I_F=5A(Ta=125^\circ C)$ | | 0.56 | | V |
| | | $I_F=10A(Ta=125^\circ C)$ | | 0.63 | | V |
| | | $I_F=20A(Ta=125^\circ C)$ | | 0.73 | 0.85 | V |
| Instantaneous Reverse current (Note 1) | I_R (Note 1) | $V_R=150V(Ta=25^\circ C)$ | | 3.0 | 30 | μA |
| | | $V_R=150V(Ta=125^\circ C)$ | | 5.0 | 15 | mA |

注/Notes:

- 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.
- 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.

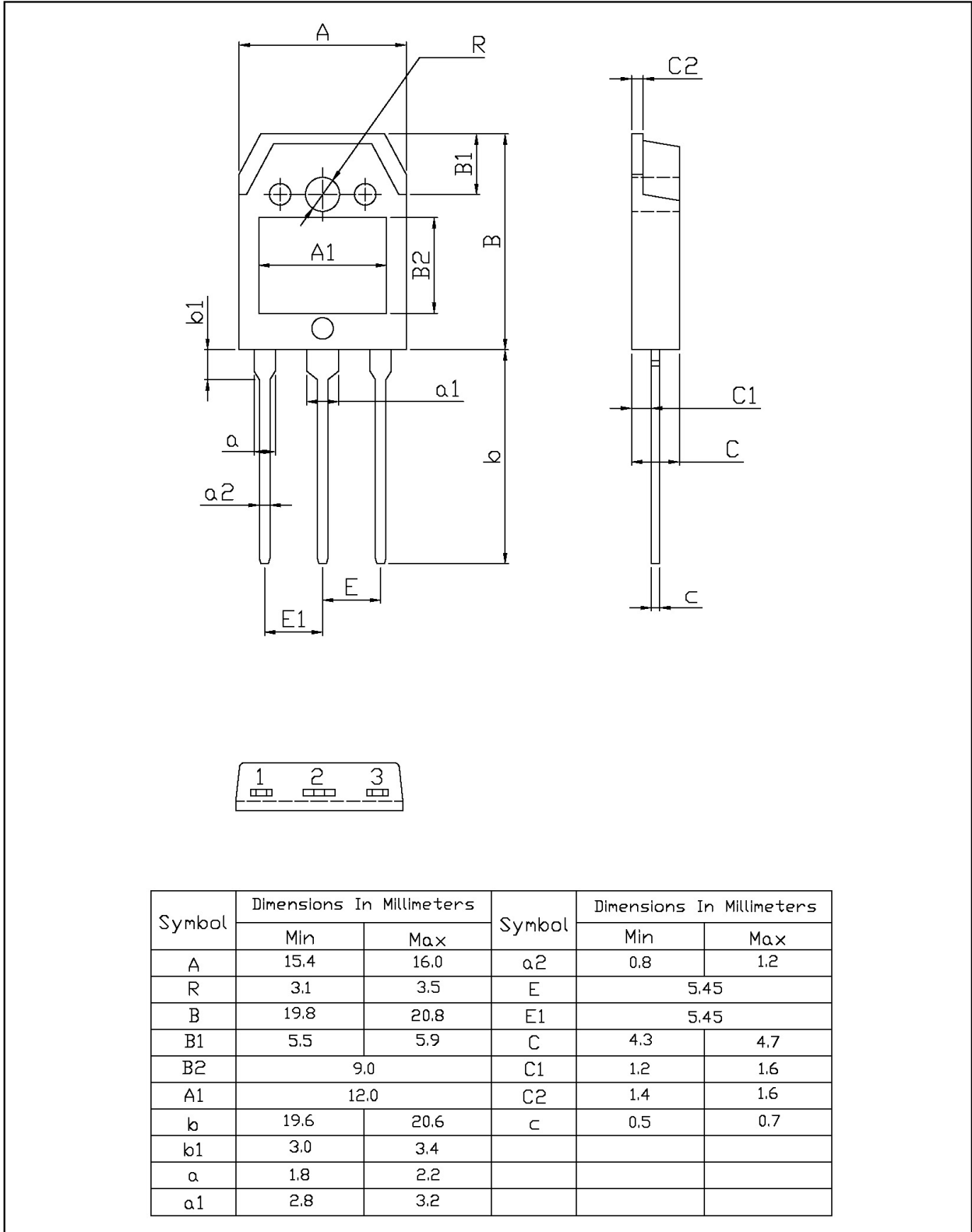
电参数曲线图 / Electrical Characteristic Curve



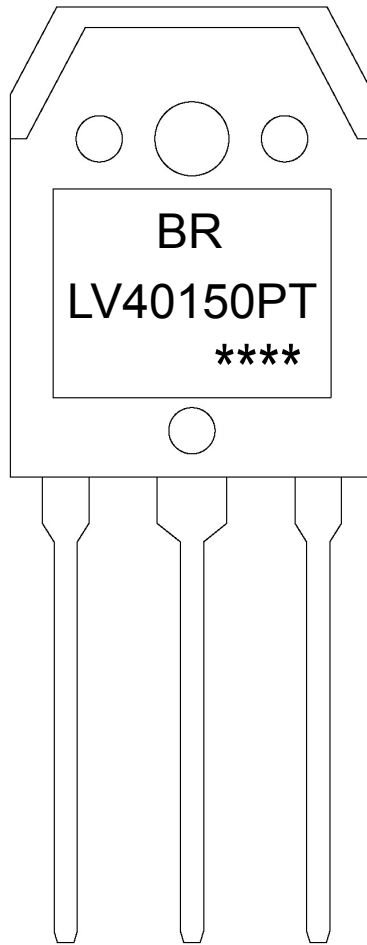
外形尺寸图 / Package Dimensions

TO-3P

单位: mm



印章说明 / Marking Instructions



说明：

BR： 为公司代码
LV40150PT： 为产品型号
****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code.
LV40150PT: 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.

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-3P | 30 | 15 | 450 | 5 | 2250 | 497.5×46×8 | 555×164×50 | 575×290×180 |

使用说明 / Notices