

BLD128DD

Rev.E May.-2016

描述 / Descriptions

TO-252 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-252 Plastic Package.

特征 / Features

耐压高,开关速度快,安全工作区宽,符合 ROHS 规范。

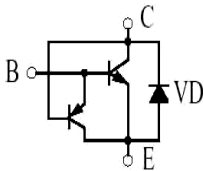
High voltage capability, high speed switching, wide SOA,ROHS compliant.

用途 / Applications

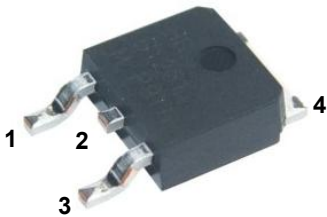
用于节能灯、电子镇流器、电子变压器,开关电源。

Fluorescent lamp, electronics ballast, electronic transformer, switch mode power supply.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base

PIN 2 : Collector

PIN 3 : Emitter

PIN 4 : VD

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

见印章说明。See Marking Instructions.

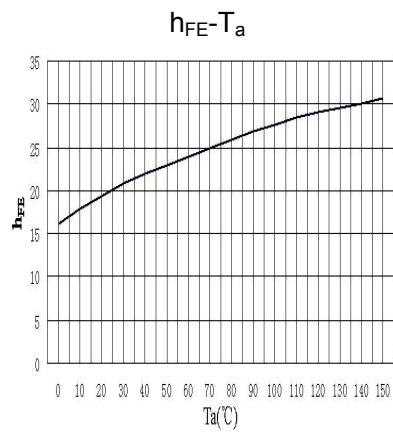
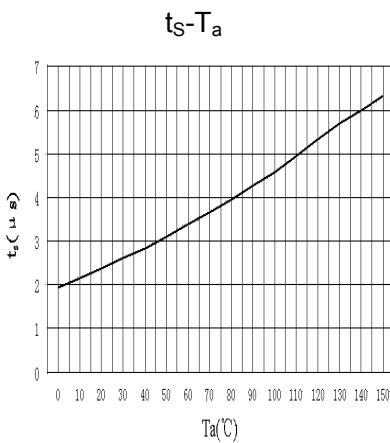
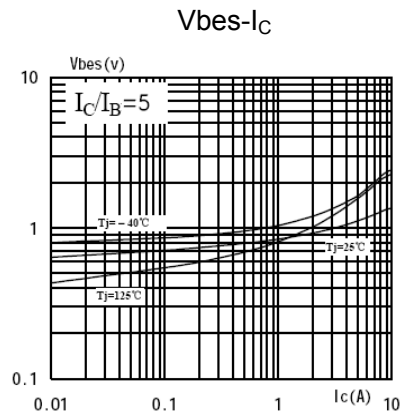
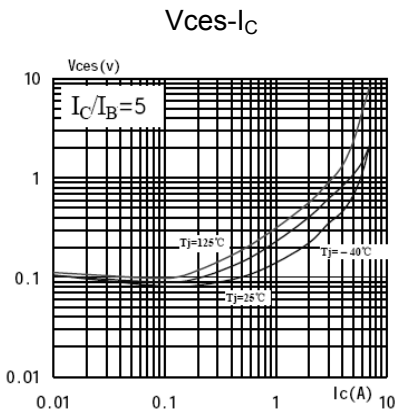
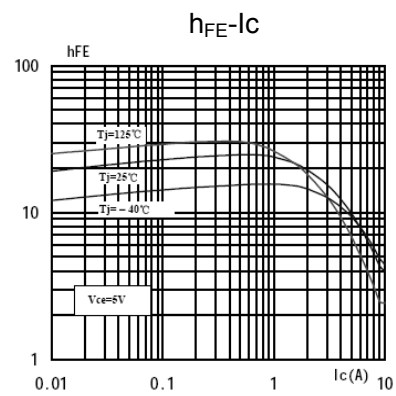
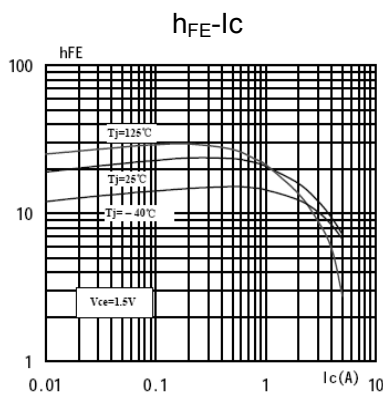
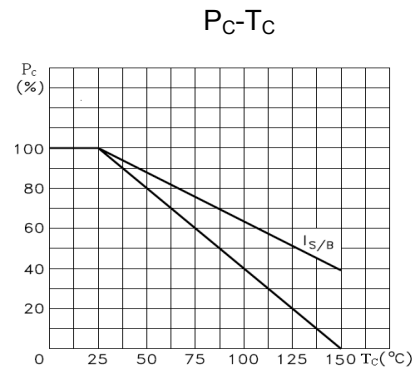
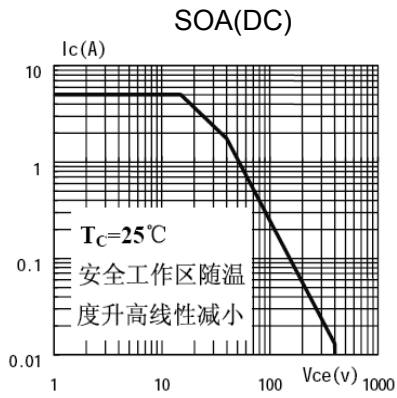
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|--------------------------------|-----------------------|--------------|------------|
| Collector to Base Voltage | V_{CBO} | 700 | V |
| Collector to Emitter Voltage | V_{CEO} | 400 | V |
| Emitter to Base Voltage | V_{EBO} | 9 | V |
| Collector Current - Continuous | I_C | 5 | A |
| Collector Power Dissipation | P_C | 1.5 | W |
| Collector Power Dissipation | $P_C(T_c=25^\circ C)$ | 50 | W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 ~ 150 | °C |

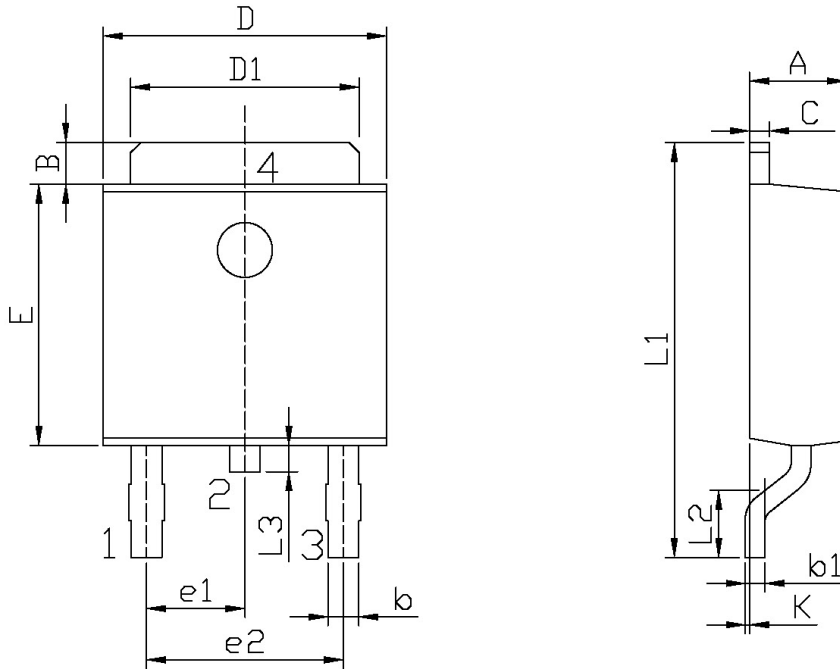
电性能参数 / Electrical Characteristics(Ta=25°C)

| 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 |
|--|------------------|------------------------------------|------------|------------|------------|------------|
| Collector to Base Breakdown Voltage | V_{CBO} | $I_C=1mA$ $I_E=0$ | 700 | | | V |
| Collector to Emitter Breakdown Voltage | V_{CEO} | $I_C=10mA$ $I_B=0$ | 400 | | | V |
| Emitter to Base Breakdown Voltage | V_{EBO} | $I_E=1mA$ $I_C=0$ | 9 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=700V$ $I_E=0$ | | | 0.1 | mA |
| Collector cut-off current | I_{CEO} | $V_{CE}=400V$ $I_B=0$ | | | 0.1 | mA |
| Emitter Base Cut-Off Current | I_{EBO} | $V_{EB}=9V$ $I_C=0$ | | | 0.1 | mA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=5V$ $I_C=1A$ | 10 | | 40 | |
| | $h_{FE(2)}$ | $V_{CE}=5V$ $I_C=4A$ | 5 | | | |
| | $h_{FE(3)}$ | $V_{CE}=5V$ $I_C=10mA$ | 7 | | | |
| Collector to Base Breakdown Voltage | $V_{CE(sat)(1)}$ | $I_C=1A$ $I_B=0.2A$ | | | 0.5 | V |
| | $V_{CE(sat)(2)}$ | $I_C=4A$ $I_B=1A$ | | | 1.5 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=1A$ $I_B=0.2A$ | | | 1.5 | V |
| Storage time | t_s | $V_{CE}=5V$ $I_C=0.5A$ (UI9600) | 1.5 | | 5 | μs |
| Fall time | t_f | | | | 0.8 | |
| Transition Frequency | f_T | $V_{CE}=10V$ $f=1MHZ$ $I_C=0.5A$ | 5 | | | MHZ |

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

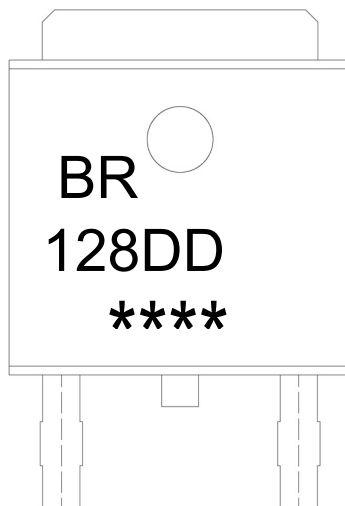


单位: mm

| Symbol | Dimensions In Millimeters | | Symbol | Dimensions In Millimeters | |
|--------|---------------------------|------|--------|---------------------------|------|
| | Min | Max | | Min | Max |
| A | 2.20 | 2.40 | E | 5.95 | 6.25 |
| B | 0.95 | 1.25 | e1 | 2.24 | 2.34 |
| b | 0.50 | 0.70 | e2 | 4.43 | 4.73 |
| b1 | 0.45 | 0.55 | L1 | 9.45 | 9.95 |
| C | 0.45 | 0.55 | L2 | 1.25 | 1.75 |
| D | 6.45 | 6.75 | L3 | 0.60 | 0.90 |
| D1 | 5.10 | 5.50 | K | 0.00 | 0.10 |

T0-252

印章说明 / Marking Instructions



说明：

BR： 为公司代码

128DD： 为型号代码

****： 为生产批号代码，随生产批号变化。

Note:

BR: Company Code

128DD: Product Type.

****: Lot No. Code, code change with Lot No.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 25~150°C，时间 60~90sec;
- 2、峰值温度 245±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.:245±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：260±5°C 时间：10±1 sec. Temp.:260±5°C Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Reel 只/卷盘 | Reels/Inner Box 卷盘/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Reel | Inner Box 盒 | Outer Box 箱 |
| TO-252 | 2,500 | 2 | 5,000 | 5 | 25,000 | 13" × 16 | 360×360×50 | 385×257×392 |

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-251/252 | 75 | 48 | 3,600 | 5 | 18,000 | 526×20.5×5.25 | 555×164×50 | 575×290×180 |

使用说明 / Notices