



3DD5044

主要参数 MAIN CHARACTERISTICS

| | | |
|---------------|------|--------------|
| BV_{CBO} | 1700 | V |
| I_C | 22 | A |
| $V_{CE(sat)}$ | 3 | V(max) |
| t_f | 0.3 | $\mu s(max)$ |

用途

- 数字、高清彩色电视机行输出电路

APPLICATIONS

- Horizontal deflection output for HDTV

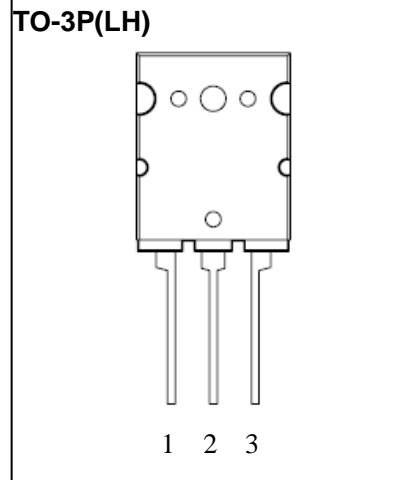
产品特性

- 3DD5044 是 NPN 双极型高反压大功率晶体管, 制造中采用的主要工艺技
术有: 高压台面工艺技术、三重扩散技术等, 采用塑料半包封结构。环保 (RoHS) 产品。

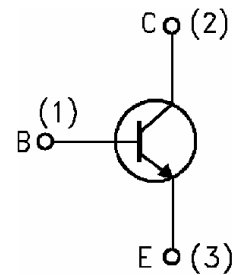
FEATURES

- 3DD5044 is high breakdown voltage of NPN bipolar transistor. The main process of manufacture: high voltage mesa type process, triple diffused process etc., adoption of half plastic package. RoHS product.

封装 Package



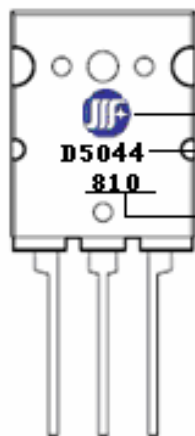
等效电路 EQUIVALENT CIRCUIT



订货信息 ORDER MESSAGE

| 订货型号 Order codes | 印记 Marking | 无卤素 Halogen Free | 封装 Package | 包装 Packaging | 器件重量 Device Weight |
|---------------------|---------------|---------------------|---------------|-----------------|-----------------------|
| 3DD5044-O-AL-N-D | D5044 | 否 NO | TO-3P(LH) | 泡沫 Foam | 9.50 g(typ) |

印记说明 MARKING



- 商标 Trademark
- 型号 Part No.
- 年月 Year month
举例 For example
“8” - 2008, “10” 10月 october



绝对最大额定值 ABSOLUTE RATINGS ($T_c=25$)

| 项 目 Parameter | 符 号 Symbol | 数 值 Value | 单 位 Unit |
|------------------------------------------|---------------|--------------|-------------|
| 集电极—基极直流电压 Collector-Base Voltage | BV_{CBO} | 1700 | V |
| 集电极—发射极直流电压 Collector-Emitter Voltage | BV_{CEO} | 750 | V |
| 发射极—基极直流电压 Emitter-Base Voltage | BV_{EBO} | 6 | V |
| 最大集电极电流 Collector Current | 直流 DC | I_C | 22 |
| | 脉冲 Pulse | I_{CP} | 44 |
| 最大基极直流电流 Base Current | I_B | 11 | A |
| 最大集电极耗散功率 Collector Power Dissipation | P_C | 200 | W |
| 最高结温 Max. Junction Temperature | T_j | 150 | |
| 储存温度 Storage Temperature Range | T_{STG} | -55~+150 | |

电特性 ELECTRICAL CHARACTERISTICS ($T_c=25$)

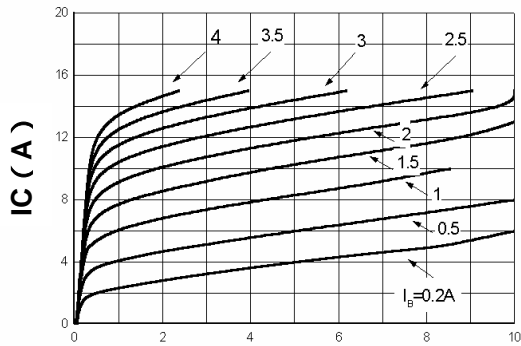
| 项 目 Parameter | 测试条件 Tests conditions | 最小值 Min | 最大值 Max | 单 位 Unit |
|------------------|-------------------------------|------------|------------|-------------|
| $V(BR)_{CEO}$ | $I_C=10mA, I_B=0$ | 750 | | V |
| $V(BR)_{CBO}$ | $I_C=1mA, I_E=0$ | 1700 | | V |
| $V(BR)_{EBO}$ | $I_E=1mA, I_C=0$ | 6 | | V |
| I_{CBO} | $V_{CB}=1500V, I_E=0$ | | 1 | mA |
| I_{EBO} | $V_{EB}=6V, I_C=0$ | | 10 | μA |
| H_{FE} | $V_{CE} = 5 V, I_C = 2 A$ | 20 | 60 | |
| | $V_{CE} = 5 V, I_C = 11 A$ | 5 | | |
| $V_{CE(sat)}$ | $I_C=11A, I_B=2.75A$ | | 3 | V |
| $V_{BE(sat)}$ | $I_C=11A, I_B=2.75A$ | | 1.3 | V |
| tf | $I_C=10A, 2I_{B1}=-I_{B2}=5A$ | | 0.3 | μs |
| ts | $f_H=15.75kHz$ | | 3.5 | μs |
| ft | $V_{CE}=10V, I_C=0.1A$ | 2 | | MHz |





特征曲线 ELECTRICAL CHARACTERISTICS CURVES

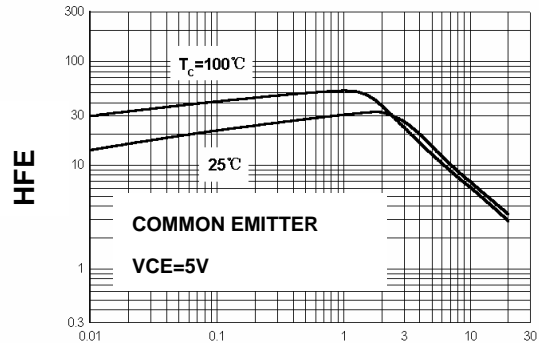
IC - VCE



VCE (V)

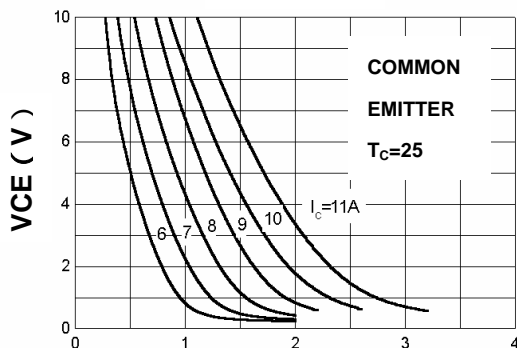
COMMON EMITTER VCE=5V

HFE - IC



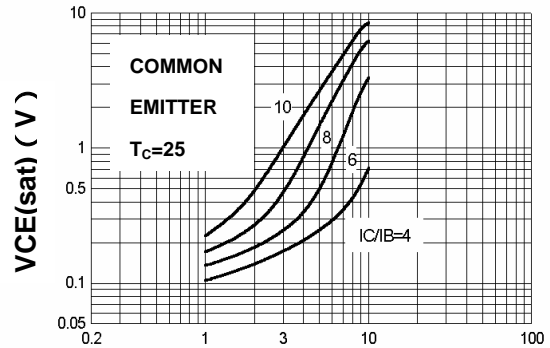
IC (A)

VCE - IB



IB (A)

VCE (sat) - IC

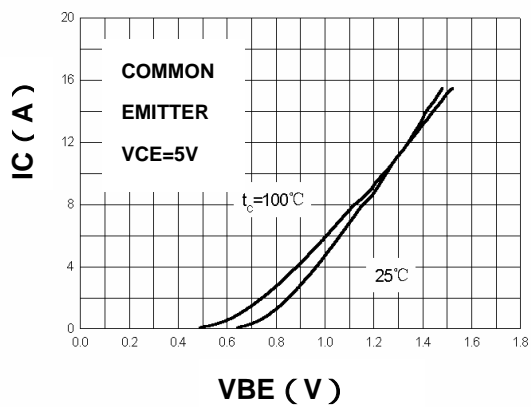


IC (A)

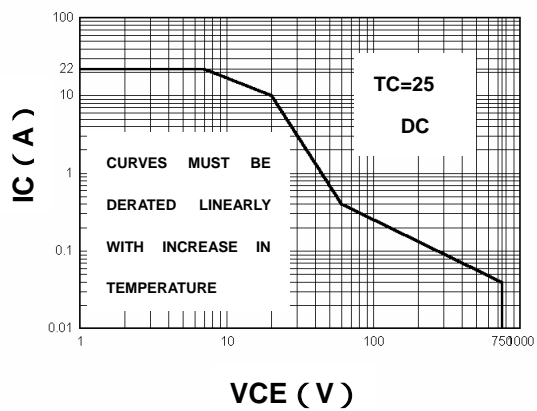




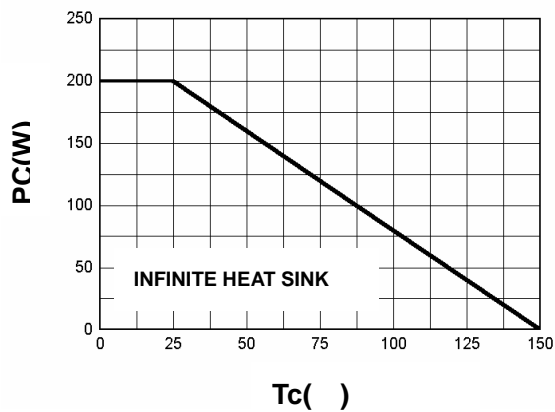
IC - VBE



SOA



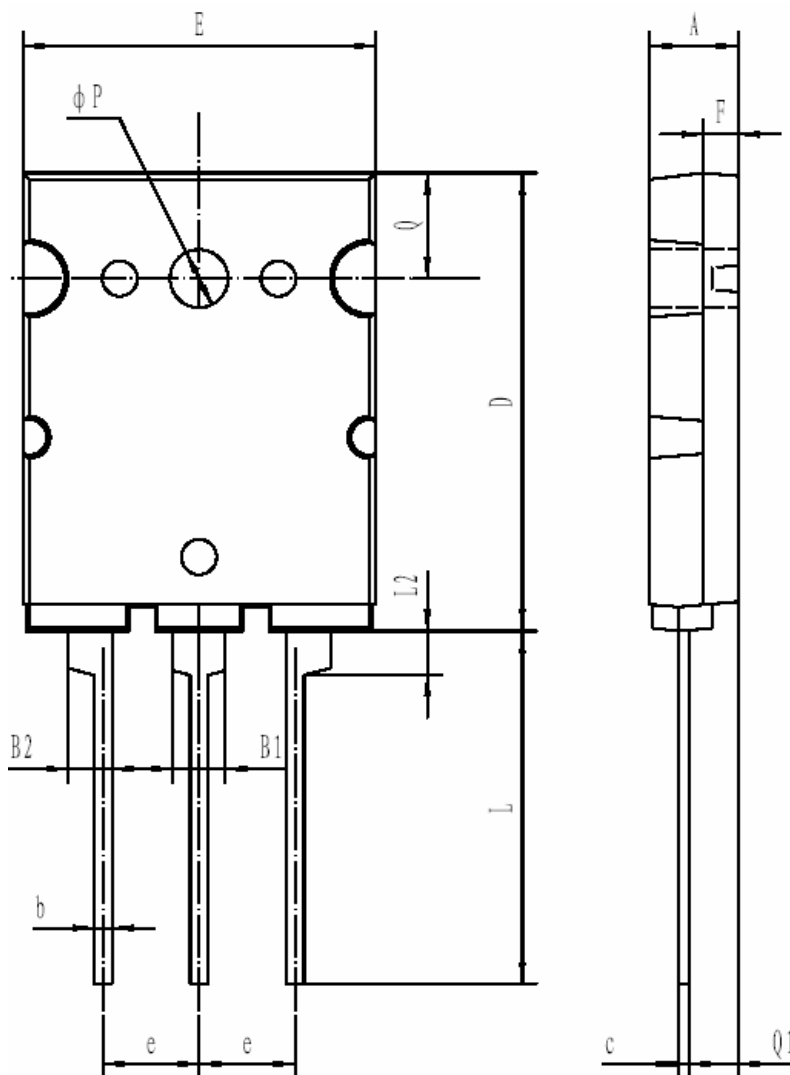
PC-TC



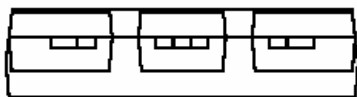


外形尺寸 PACKAGE MECHANICAL DATA
TO-3P(LH)

单位 Unit : mm



| 符号 Symbol | Min | Max |
|--------------|------------|------|
| A | 4.7 | 5.3 |
| B1 | 2.8 | 3.2 |
| B2 | 2.3 | 2.7 |
| b | 0.8 | 1.25 |
| c | 0.5 | 0.85 |
| D | 25.5 | 26.5 |
| E | 19.5 | 20.5 |
| e | 5.45 (typ) | |
| F | 1.8 | 2.2 |
| L | 19.5 | 20.5 |
| L2 | 2.3 | 2.7 |
| ϕP | 3.1 | 3.5 |
| Q | 5.8 | 6.2 |
| Q1 | 2.6 | 3.0 |



**注意事项**

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4. 本说明书如有版本变更不另外告知

NOTE

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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附录 (Appendix) : 修订记录 (Revision History)

| 日期 Date | 旧版本 Last Rev. | 新版本 New Rev. | 修订内容 Description of Changes |
|------------|---------------|--------------|--------------------------------------------------|
| 2009-10-10 | 901C | 910D | 增加订货信息，印记说明等 Add order message, marking, etc. |
| 2009-11-3 | 910D | 911E | 修改电话号码 |

