

描述 / Descriptions

SOT-23 塑封封装 PNP 半导体三极管。Silicon PNP transistor in a SOT-23 Plastic Package.

特征 / Features

PC、IC 大, h_{FE} 特性极好, 与 9013M 互补。

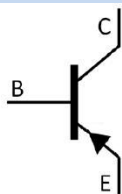
High P_C and I_C , Excellent h_{FE} linearity, complementary pair with 9013M.

用途 / Applications

用于收音机推挽功放。

Amplifier of portable radios in class B push-pull operation.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1 : Base PIN 2 : Emitter PIN 3 : Collector

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

| h_{FE} Classifications Symbol | D | E | F | G | H | I |
|---------------------------------|-------|--------|--------|---------|---------|---------|
| h_{FE} Range | 64~91 | 78~112 | 96~135 | 112~166 | 144~202 | 188~276 |
| Marking | H2TD | H2TE | H2TF | H2TG | H2TH | H2TI |

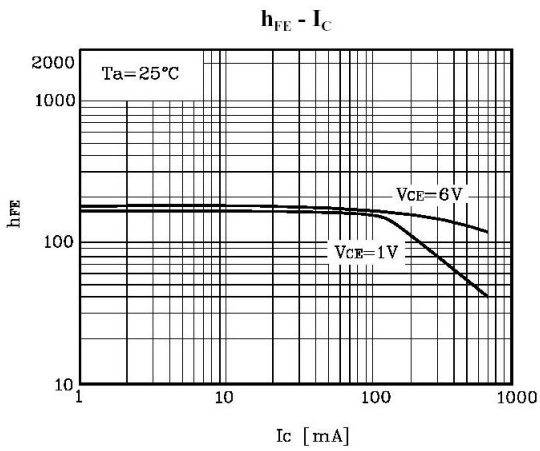
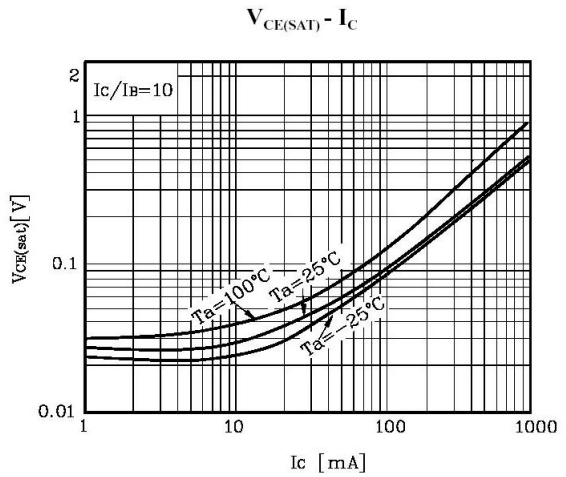
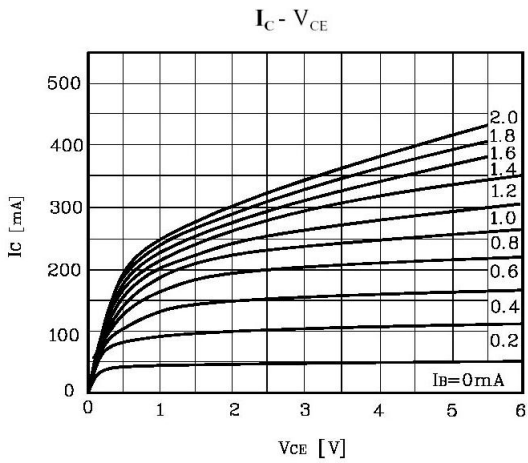
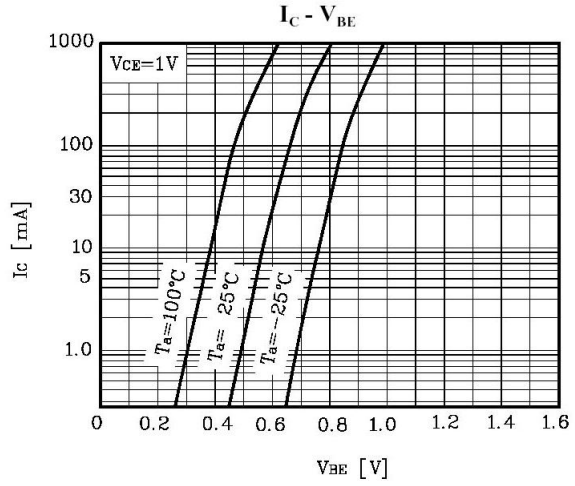
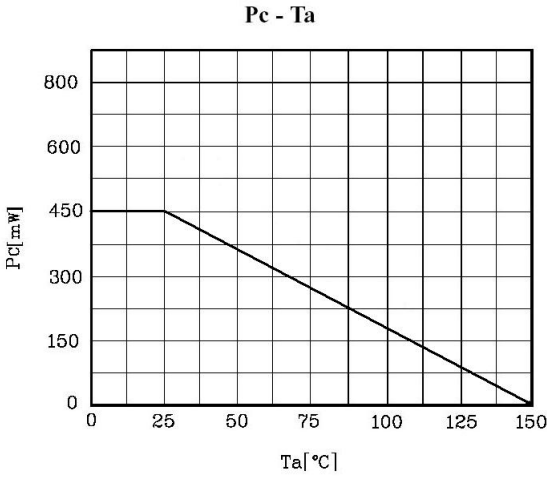
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|------------------------------|--------------|--------------|------------|
| Collector to Base Voltage | V_{CBO} | -40 | V |
| Collector to Emitter Voltage | V_{CEO} | -20 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current | I_C | -500 | mA |
| Base Current | I_B | -100 | mA |
| Collector Power Dissipation | P_C | 450 | mW |
| 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} | $I_C=-0.1mA$ $I_E=0$ | -40 | | | V |
| Collector to Emitter Breakdown Voltage | V_{CEO} | $I_C=-1.0mA$ $I_B=0$ | -20 | | | V |
| Emitter to Base Breakdown Voltage | V_{EBO} | $I_E=-0.1mA$ $I_C=0$ | -5.0 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=-25V$ $I_E=0$ | | | -0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=-3.0V$ $I_C=0$ | | | -0.1 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=-1.0V$ $I_C=-50mA$ | 64 | | 276 | |
| | $h_{FE(2)}$ | $V_{CE}=-1.0V$ $I_C=-500mA$ | 40 | | | |
| Collector-Emitter Saturation voltage | $V_{CE(sat)}$ | $I_C=-500mA$ $I_B=-50mA$ | | -0.18 | -0.6 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=-500mA$ $I_B=-50mA$ | | -0.95 | -1.2 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE}=-1.0V$ $I_C=-10mA$ | | -0.67 | -0.7 | V |

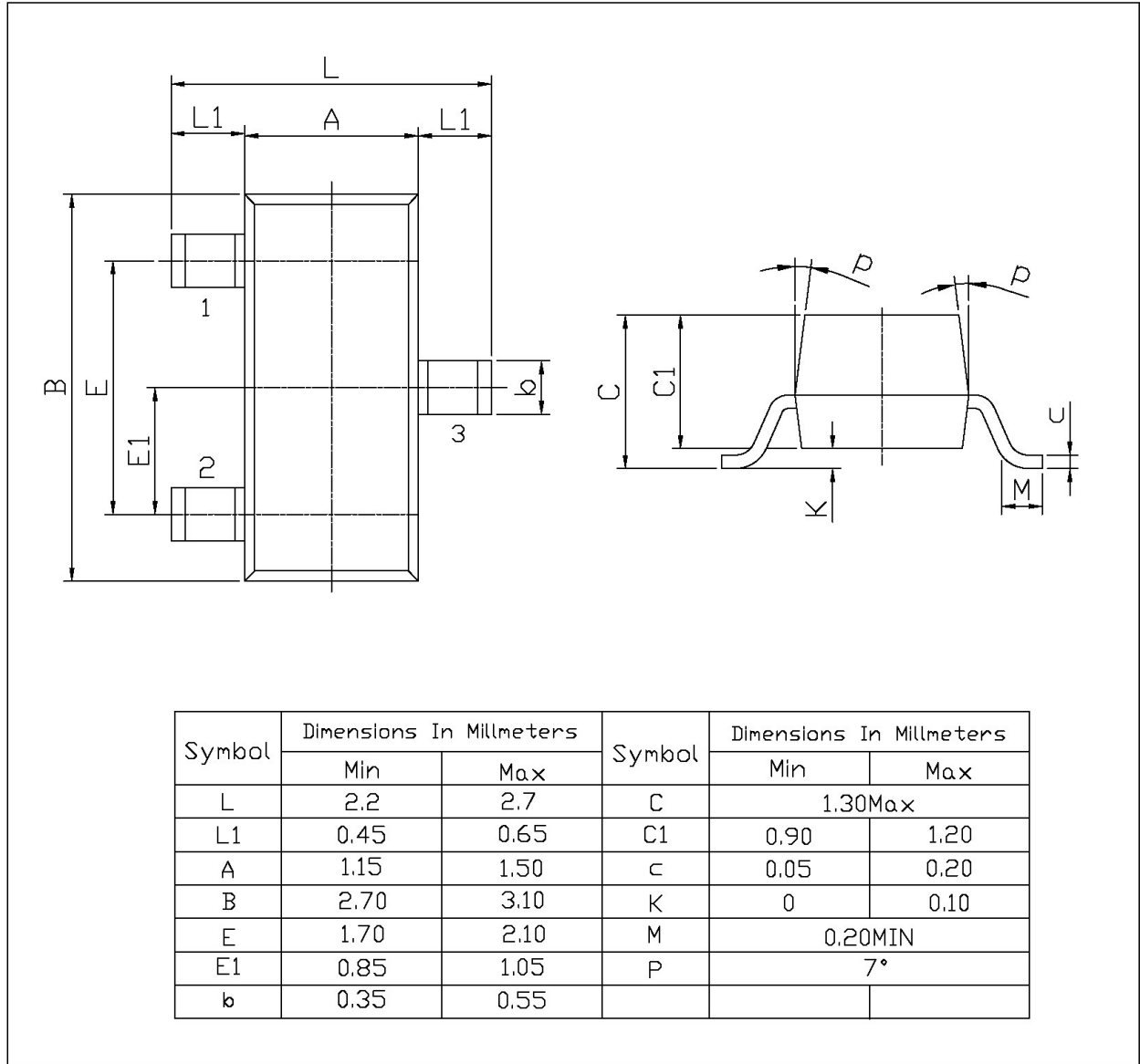
电参数曲线图 / Electrical Characteristic Curve



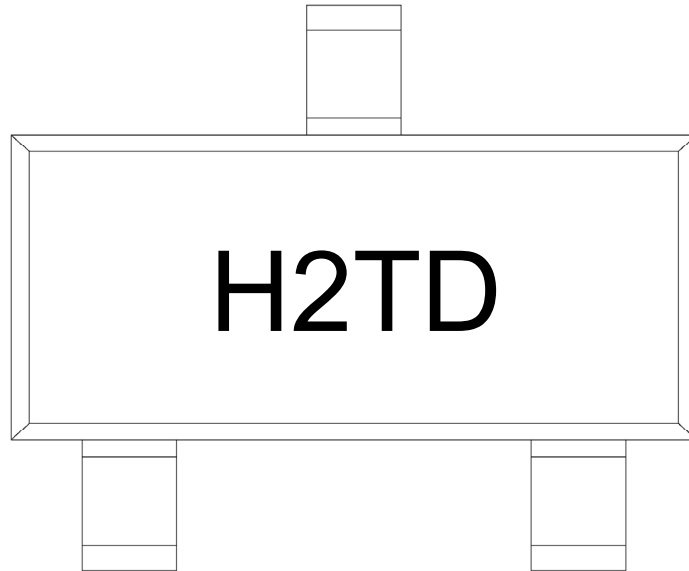
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H： 为公司代码

2T： 为型号代码

D： 为 h_{FE} 档次代码

Note:

H： Company Code

2T： Product Type Code

D： h_{FE} Classifications Symbol Code

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 |
| SOT-23 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7" ×8 | 180×120×180 | 390×385×205 |

使用说明 / Notices