## / Revised record

| 版本 | 修订日期 | 有修订的页码 | 修订涉及的内容 | 拟制 | 审核 |
|---|---|---|---|---|---|
| | □ | | | | |
| F | □ □ | | 与刘哥确认功率 由 625 mW 改为 300mW | 黄超 | 刘晓荣 |
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# L8550M

Rev.G Jan.-2022

**DATA SHEET**

## / Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package.

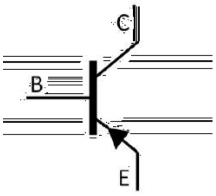
## / Features

Complementary pair with L8050M.

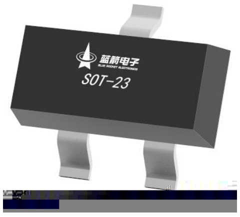
## / Applications

Power amplifier applications.

## / Equivalent Circuit



## / Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

## / $h_{FE}$ Classifications & Marking

$h_{FE}$

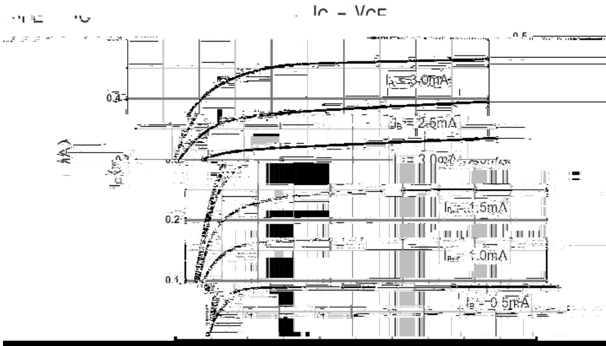
## / Absolute Maximum Ratings(Ta=25 )

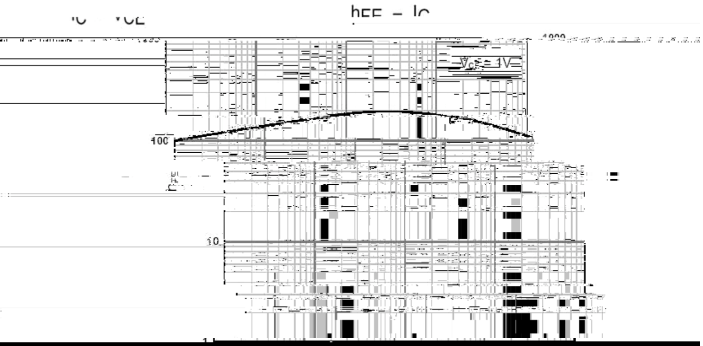
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector to Base Voltage | $V_{CBO}$ | -30 | V |
| Collector to Emitter Voltage | $V_{CEO}$ | -20 | V |
| Emitter to Base Voltage | $V_{EBO}$ | -6.0 | V |
| Collector Current - Continuous | $I_C$ | -1.5 | A |
| Base Current - Continuous | $I_B$ | -0.5 | A |
| Collector Power Dissipation | $P_C$ | 300 | mW |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature Range | $T_{stg}$ | -55～150 | ℃ |

## / Electrical Characteristics(Ta=25 )

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector to Base Breakdown Voltage | $V_{CBO}$ | $I_C$=-0.1mA $I_E$=0 | -30 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{CEO}$ | $I_C$=-2.0mA $I_B$=0 | -20 | | | V |
| Emitter to Base Breakdown Voltage | $V_{EBO}$ | $I_E$=-0.1mA $I_C$=0 | -6.0 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=-30V $I_E$=0 | | | -0.1 | μA |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=-6.0V $I_C$=0 | | | -0.1 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}$=-1.0V $I_C$=-100mA | 85 | | 300 | |
| | $h_{FE(2)}$ | $V_{CE}$=-1.0V $I_C$=-800mA | 40 | | | |
| | $h_{FE(3)}$ | $V_{CE}$=-1.0V $I_C$=-5.0mA | 45 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C$=-800mA $I_B$=-80mA | | -0.28 | -0.5 | V |
| Base to Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C$=-800mA $I_B$=-80mA | | -0.98 | -1.2 | V |
| Base to Emitter Saturation Voltage | $V_{BE}$ | $V_{CE}$=-1.0V $I_C$=-10mA | | -0.66 | -1.0 | V |
| Transition Frequency | $f_T$ | $V_{CE}$=-10V $I_C$=-50mA | 100 | 200 | | MHz |
| Collector Output Capacitance | $C_{ob}$ | $V_{CB}$=-10V $I_E$=0<br>f=1.0MHz | | 15 | | pF |

## / Electrical Characteristic Curve





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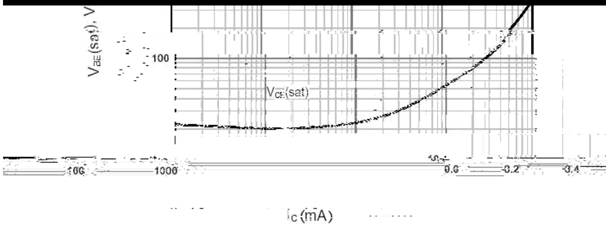
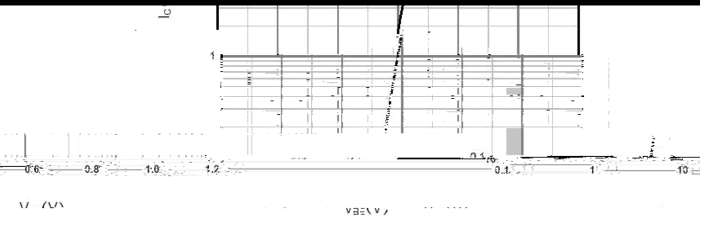
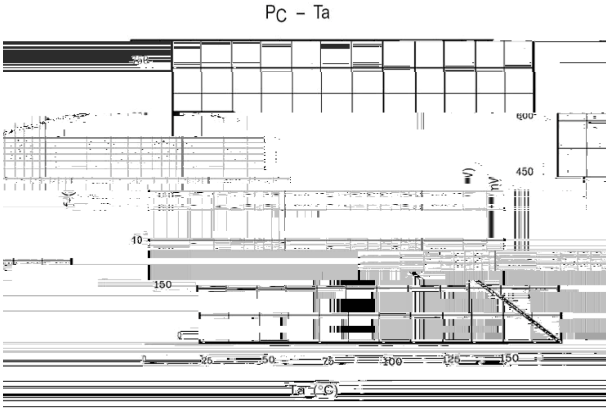
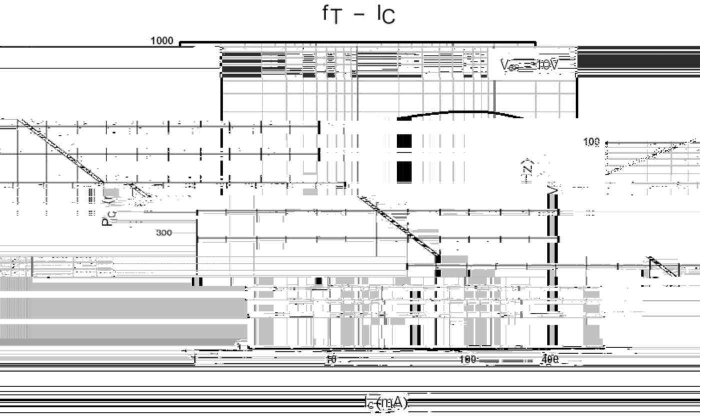


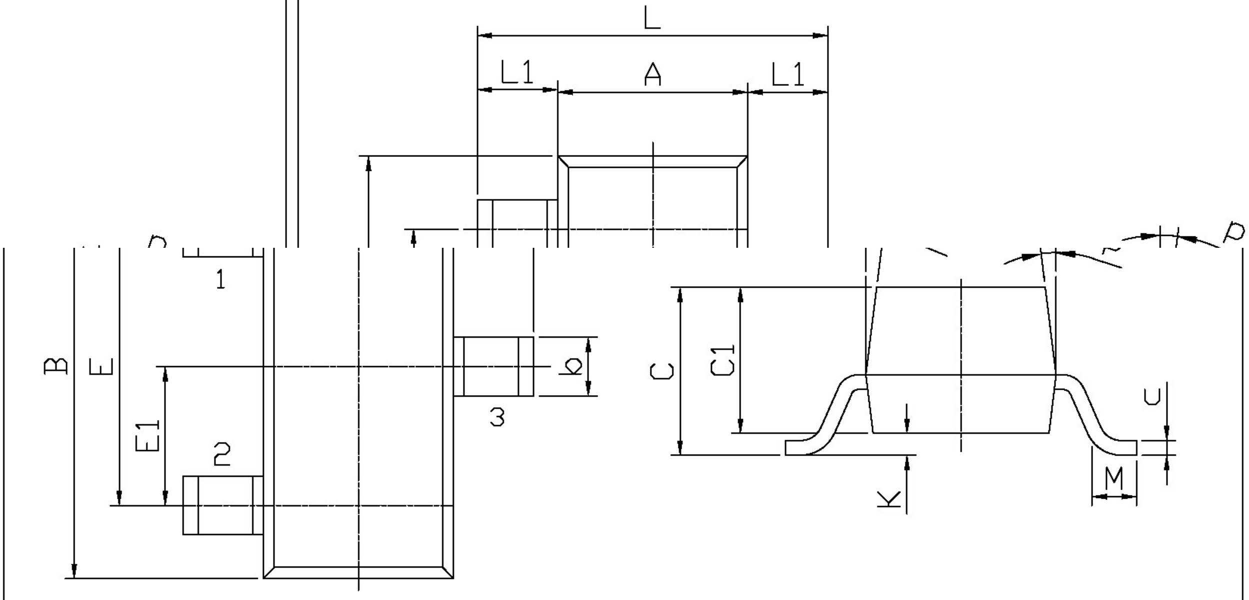






## / Package Dimensions

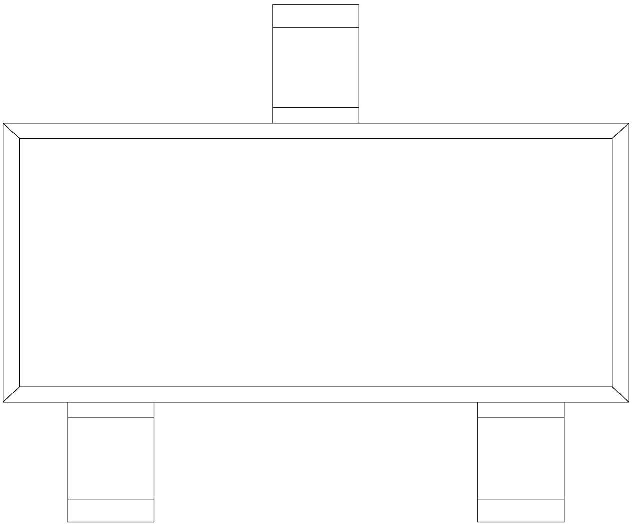
SOT-23 单位 mm



Dimensions In Millimeters

| Symbol | Min. | Max. | Symbol | Min. | Max. |
|---|---|---|---|---|---|
| L | 2.2 | 2.7 | C | 1.30Max | |
| L1 | 0.45 | 0.65 | C1 | 0.90 | 1.20 |
| A | 1.15 | 1.50 | c | 0.15 | 0.20 |
| B | 2.70 | 3.10 | K | 0.00 | 0.10 |
| E | 1.70 | 2.10 | M | 0.20MIN | |
| E1 | 0.85 | 1.05 | P | 7° | |
| b | 0.35 | 0.55 | | | |

## / Marking Instructions



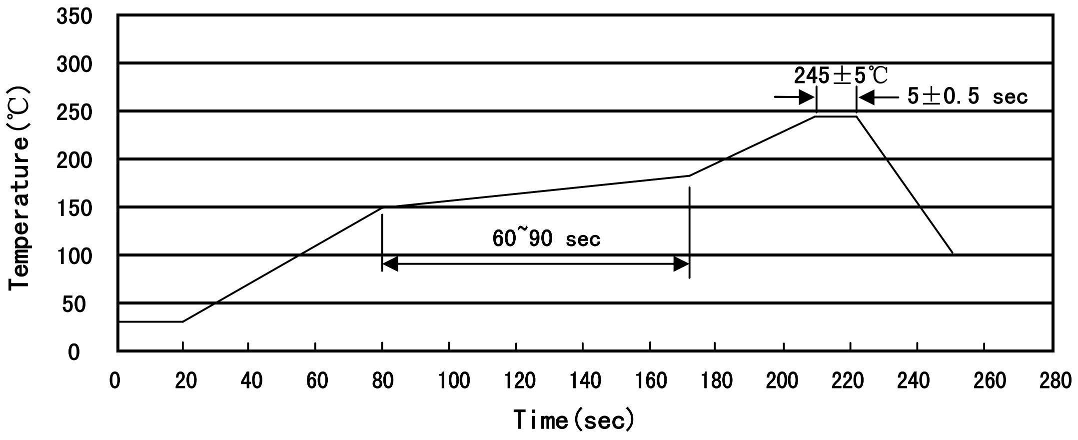
说明：

| | |
|---|---|
| H： | 为公司代码 |
| Y2： | 为型号代码 |
| B： | 为 $h_{FE}$ 分档代码 |

Note:

| | |
|---|---|
| H: | Company Code |
| Y2: | Product Type Code |
| B: | $h_{FE}$ |

## ( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

1、预热温度 150～180℃，时间 60～90sec;

2、峰值温度 245±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:150~180℃, Time:60~90sec.

2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

## / Resistance to Soldering Heat Test Conditions

温度：260±5℃ 时间：10±1 sec.

Temp.:260±5℃ Time:10±1 sec

## / Packaging SPEC.

卷盘包装 / REEL

| Package Type<br>封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm³) | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | 盒 | 箱 |
| | | | | | | 〃 | | |

## / Notices