

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



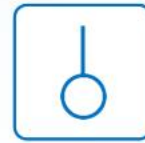
MOS



LDO



Diode



Sensor



DC-DC

Product Specification

| | | |
|--------------|-------------|-------------------|
| ▶ Domestic | Part Number | 2SA2121 / 2SC5949 |
| ▶ Overseas | Part Number | 2SA2121 / 2SC5949 |
| ▶ Equivalent | Part Number | 2SA2121 / 2SC5949 |

EV is the abbreviation of name EVVO

硅-双极型外延平面 NPN-PNP 配对功率放大晶体管

2SA2121(PNP)

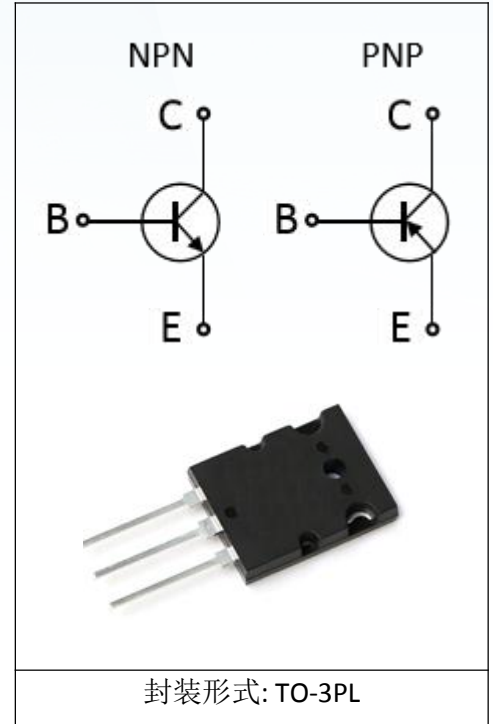
2SC5949(NPN)

特点与应用:

- 大的输出电流: $I_c=15A$
- 高的击穿电压: $V_{CEO} \geq 200V$
- 宽的工作区域: $3.2A/80V@1\text{ Second}$
- 优的频率特性: $f_T > 20MHz$
- 适用于 100W 以上高保真音频放大器末级输出

注意 1: 能够持续不断的负荷运行: 比如应用于高温、高电压、大电流, 并适用于温度的大变化等。

注意 2: 在以下的操作环境下功率晶体管的可靠性可能会降低: 比如运用在最大的电流和最高的温度和电压等。

绝对最大额定参数值($T_c=25^\circ C$):

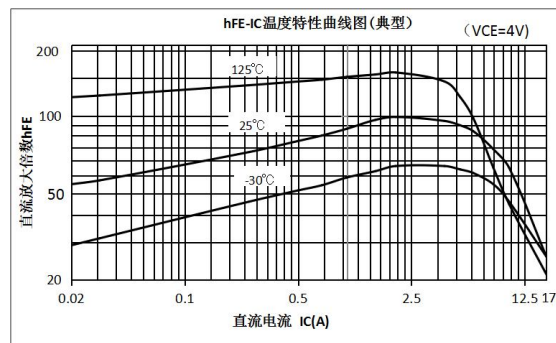
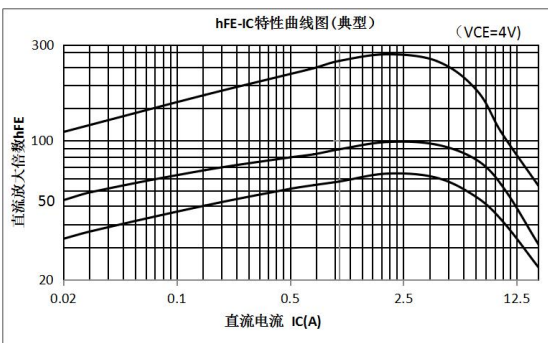
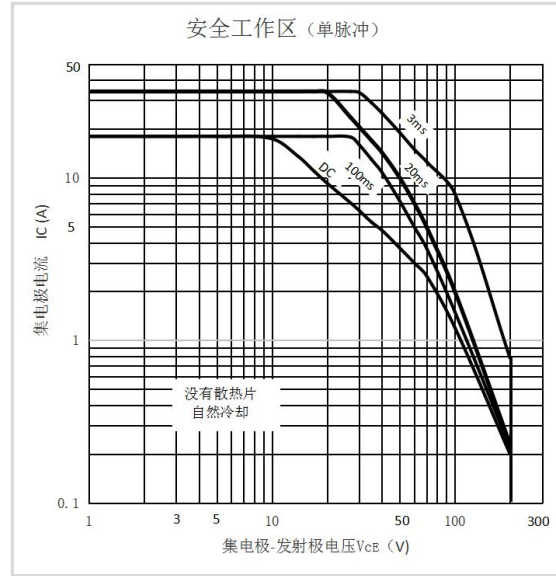
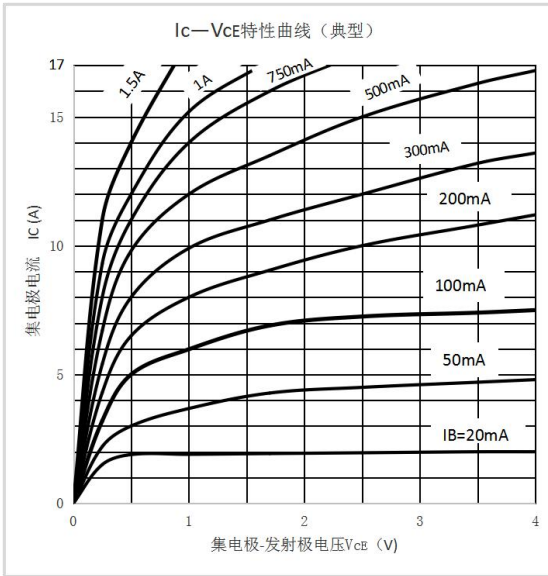
| 参数名称 | 符号 | 额定值 | 单位 |
|-----------------------------|-----------|---------|------------|
| 集电极-发射极电压 | V_{CBO} | 200 | V |
| 集电极-基极电压 | V_{CEO} | 200 | V |
| 发射极-基极电压 | V_{EBO} | 5 | V |
| 集电极电流 | I_c | 15 | A |
| 基极电流 | I_B | 1.5 | A |
| 集电极功率损耗($T_c=25^\circ C$) | P_c | 220 | W |
| 接点温度 | T_j | 150 | $^\circ C$ |
| 存储温度范围 | T_{STG} | -55~150 | $^\circ C$ |

电参数 (Tc=25°C):

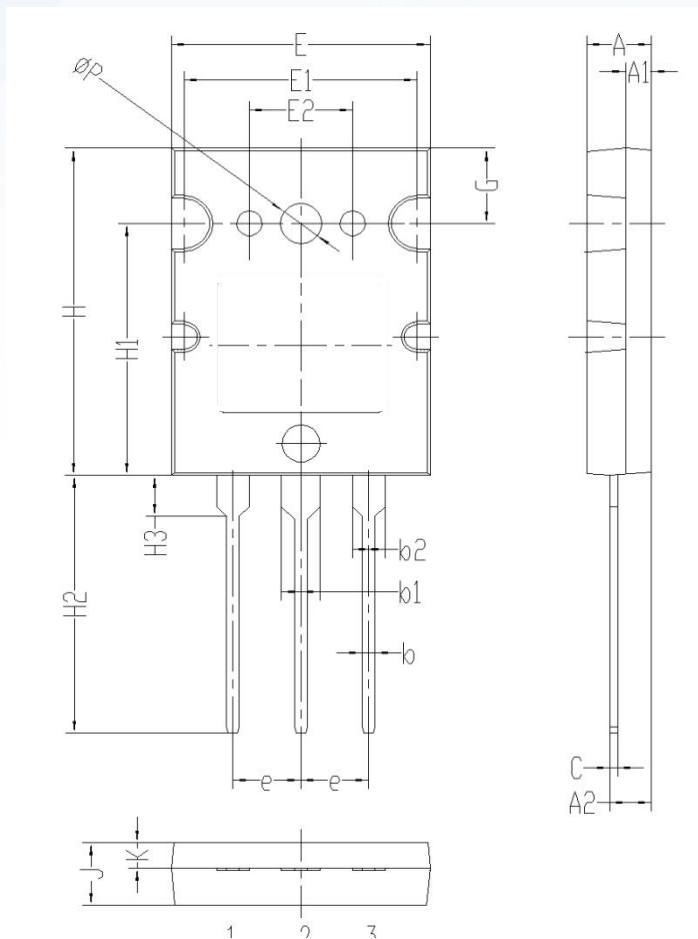
| 参数名称 | 参数 | 测试条件 | 最小值 | 典型值 | 最大值 | 单位 |
|-------------|----------------------|---|-----|-----|-----|-----|
| 集电极-基极击穿漏电 | I _{CB0} | V _{CB} =200V; I _E =0 | | | 5.0 | uA |
| 发射极-基极击穿漏电 | I _{EB0} | V _{EB} =5V; I _C =0 | | | 5.0 | uA |
| 集电极-发射极击穿电压 | V _{(BR)CEO} | I _C =50mA, I _B =0 | 200 | | | V |
| 放大增益 | h _{FE(1)} | V _{CE} =5V; I _C =1A | 55 | | 160 | |
| | h _{FE(2)} | V _{CE} =5V; I _C =8A | 35 | 70 | | |
| 集电极-发射极饱和电压 | V _{CE(sat)} | I _C =10A; I _B =1.0A | | 1.5 | 3.0 | V |
| 基极-发射极电压 | V _{BE} | V _{CE} =5V; I _C =8A | | 1.0 | 1.5 | V |
| 特征频率 | f _T | V _{CE} =5V; I _C =1A | | 25 | | MHz |

| 参数 | 参数说明 | 典型值 | 条件 |
|------------------|--------|------|------|
| R _{θjc} | 结到管壳温度 | 0.35 | °C/W |

典型特征



封装信息：TO-3PL 封装



| Symbol | Unit mm | | |
|----------|---------|------|------|
| | Min | Typ | Max |
| A | 4.80 | 5.00 | 5.20 |
| A1 | 1.8 | 2.0 | 2.2 |
| A2 | 3.30 | 3.50 | 3.70 |
| b | 0.80 | 1.0 | 1.20 |
| b1 | 2.80 | 3.00 | 3.20 |
| b2 | 2.40 | 2.60 | 2.80 |
| c | 0.50 | 0.60 | 0.70 |
| e | 5.25 | 5.45 | 5.65 |
| E | 19.8 | 20.0 | 20.2 |
| E1 | 17.8 | 18.0 | 18.2 |
| E2 | 7.8 | 8.0 | 8.2 |
| H | 25.8 | 26.0 | 26.2 |
| H1 | 19.8 | 20.0 | 20.2 |
| H2 | 19.8 | 20.3 | 20.8 |
| H3 | 2.0 | 2.5 | 3.0 |
| G | 5.8 | 6.0 | 6.2 |
| ϕP | 3.00 | 3.20 | 3.40 |
| J | 4.80 | 5.00 | 5.20 |
| K | 1.3 | 1.5 | 1.7 |

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