

EVVOSEMI[®]

THINK CHANGE DO



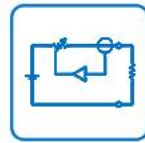
ESD



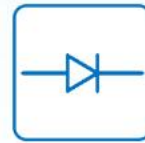
TVS



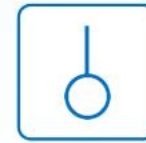
MOS



LDO



Diode



Sensor



DC-DC

Product Specification

| | | |
|--------------|-------------|-------------------|
| ▶ Domestic | Part Number | 2SA1940 / 2SC5197 |
| ▶ Overseas | Part Number | 2SA1940 / 2SC5197 |
| ▶ Equivalent | Part Number | 2SA1940 / 2SC5197 |

EV is the abbreviation of name EVVO

硅-双极型外延平面配对功率放大晶体管

2SA1940(PNP)

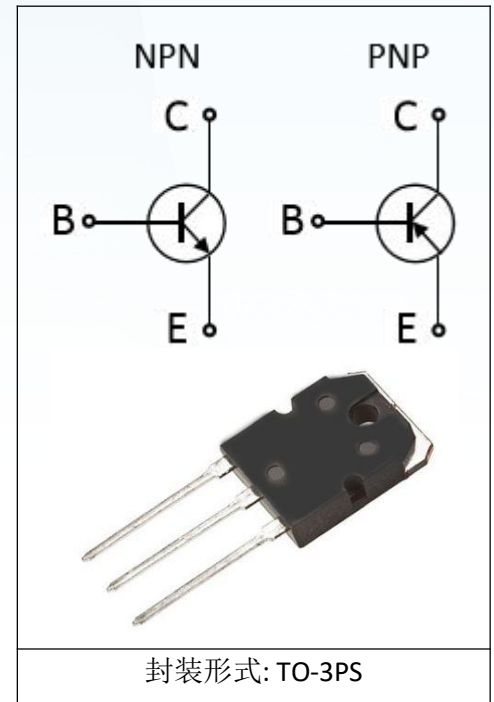
2SC5197(NPN)

特点与应用:

- 大的输出电流: $I_c=8A$
- 高的击穿电压: $V_{CEO} \geq 120V$
- 宽的工作区域: $2.0A/80V@1\text{ Second}$
- 优的频率特性: $f_T > 30MHz$
- 适用于 80W 以上高保真音频放大器推动级及末级输出

注意 1: 能够持续不断的负荷运行: 比如应用于高温度、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($T_c=25^\circ C$):

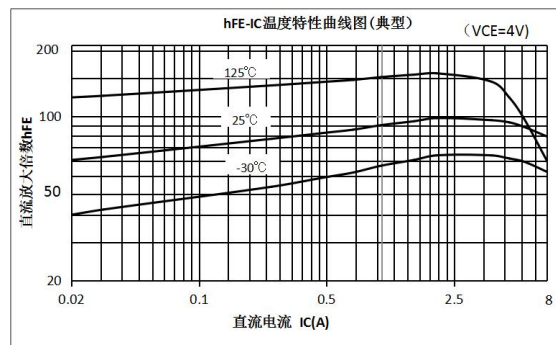
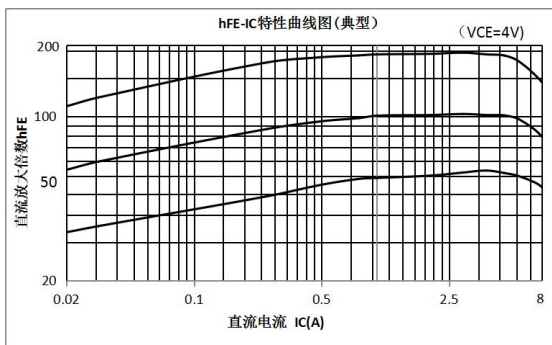
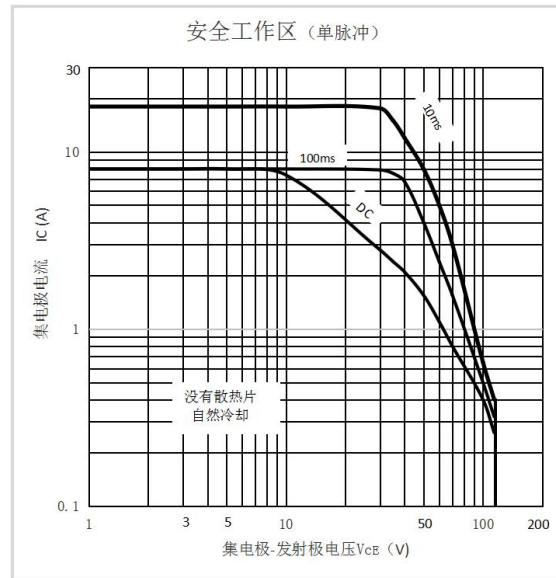
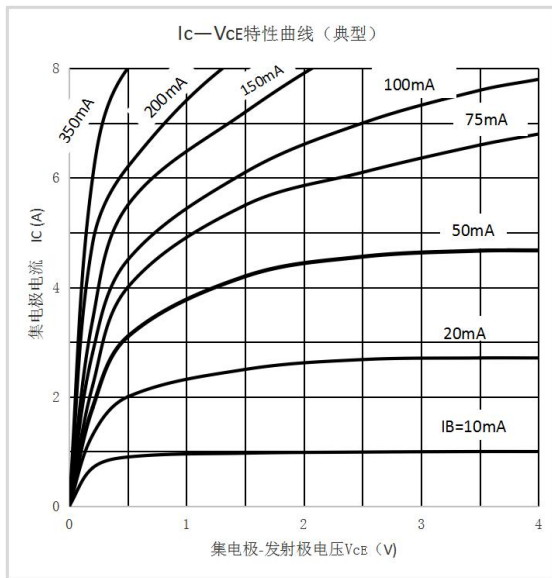
| 参数名称 | 符号 | 额定值 | 单位 |
|-----------------------------|-----------|---------|------------|
| 集电极-发射极电压 | V_{CBO} | 120 | V |
| 集电极-基极电压 | V_{CEO} | 120 | V |
| 发射极-基极电压 | V_{EBO} | 5 | V |
| 集电极电流 | I_c | 8 | A |
| 基极电流 | I_B | 1.5 | A |
| 集电极功率损耗($T_c=25^\circ C$) | P_c | 80 | W |
| 接点温度 | T_j | 150 | $^\circ C$ |
| 存储温度范围 | T_{STG} | -55~150 | $^\circ C$ |

电参数 (Tc=25°C):

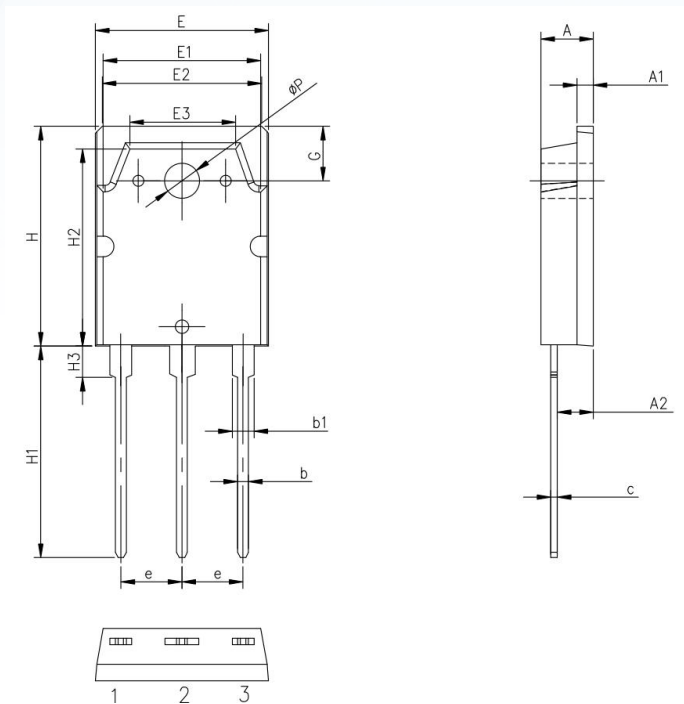
| 参数名称 | 参数 | 测试条件 | 最小值 | 典型值 | 最大值 | 单位 |
|-------------|---------------|----------------------|-----|------|-----|---------|
| 集电极-基极击穿漏电 | I_{CBO} | $V_{CB}=120V; I_E=0$ | | | 5.0 | μA |
| 发射极-基极击穿漏电 | I_{EBO} | $V_{EB}=5V; I_C=0$ | | | 5.0 | μA |
| 集电极-发射极击穿电压 | $V_{(BR)CEO}$ | $I_C=50mA, I_B=0$ | 120 | | | V |
| 放大增益 | h_{FE} | $V_{CE}=5V; I_C=1A;$ | 55 | | 160 | |
| | $h_{FE(2)}$ | $V_{CE}=5V; I_C=4A;$ | 35 | 75 | | |
| 集电极-发射极饱和电压 | $V_{CE(sat)}$ | $I_C=6A; I_B=-0.6A$ | | 0.35 | 2.0 | V |
| 基极-发射极电压 | V_{BE} | $V_{CE}=5V; I_C=4A$ | | | 1.5 | V |
| 特征频率 | f_T | $V_{CE}=5V; I_C=1A$ | | 30 | | MHz |

| 参数 | 参数说明 | 典型值 | 条件 |
|-----------------|--------|------|---------------|
| $R_{\theta JC}$ | 结到管壳温度 | 0.32 | $^{\circ}C/W$ |

典型特征



封装信息 : TO-3PS 封装



| Symbol | 单位 mm | | |
|----------|-------|------|------|
| | Min | Nom | Max |
| A | 4.30 | 4.50 | 4.70 |
| A1 | 1.3 | 1.5 | 1.7 |
| A2 | 2.50 | 2.70 | 2.90 |
| b | 0.80 | 1.0 | 1.20 |
| b1 | 1.80 | 2.00 | 2.20 |
| c | 0.50 | 0.60 | 0.70 |
| e | 5.25 | 5.45 | 5.65 |
| E | 15.1 | 15.5 | 15.9 |
| E1 | 13.1 | 13.3 | 13.5 |
| E2 | 13.2 | 13.4 | 13.6 |
| E3 | 9.1 | 9.3 | 9.5 |
| H | 19.8 | 20.0 | 20.2 |
| H1 | 20.0 | 20.5 | 21.0 |
| H2 | 18.3 | 18.5 | 18.7 |
| H3 | 2.8 | 3.0 | 3.2 |
| G | 4.30 | 4.50 | 4.70 |
| ΦP | 3.00 | 3.20 | 3.40 |

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