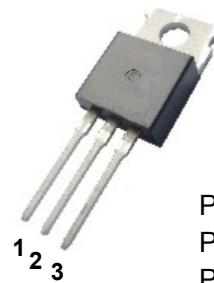


描述 / Descriptions

TO-220 塑封封装 PNP 半导体三极管。

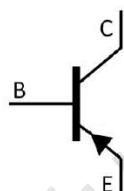
Silicon PNP transistor in a TO-220 Plastic Package.


 PIN1 : Base
 PIN 2 : Collector
 PIN 3 : Emitter

特征 / Features

与 TIP41 互补。

Complement to TIP41.


用途 / Applications

用于中功率线性开关放大。

Medium power linear switching applications.

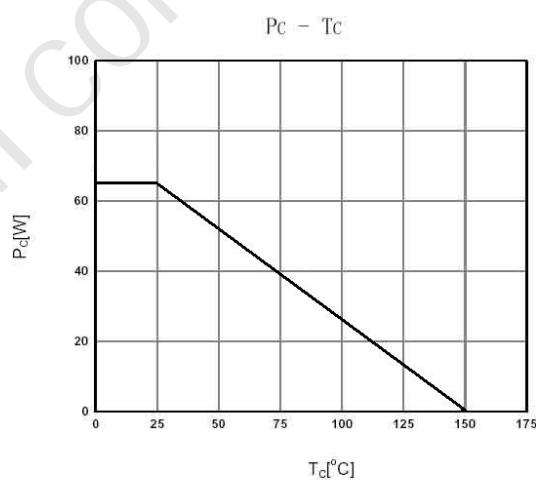
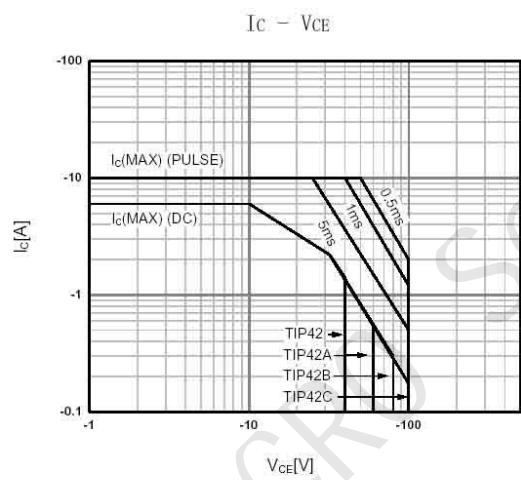
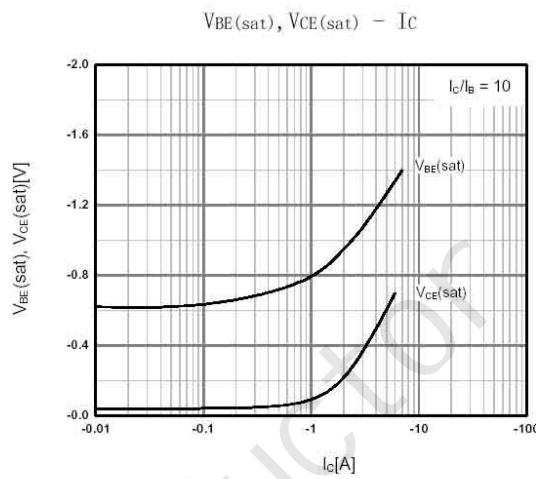
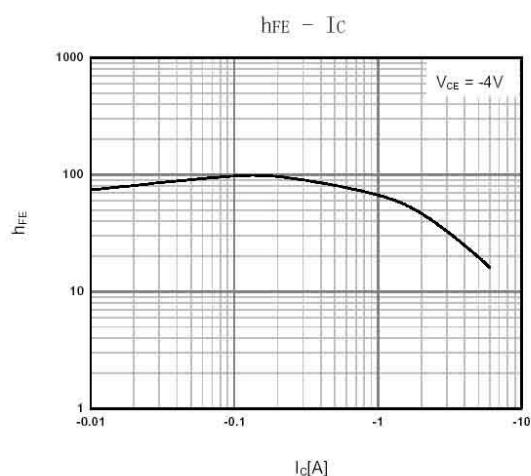
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | | | | 单位 Unit |
|--------------------------------|---------------------------------------|--------------|--------|---------|--------|------------|
| | | TIP42 | TIP42A | TIP42B | TIP42C | |
| Collector to Base Voltage | V _{CBO} | -40 | -60 | -80 | -100 | V |
| Collector to Emitter Voltage | V _{CEO} | -40 | -60 | -80 | -100 | V |
| Emitter to Base Voltage | V _{EBO} | | | -5.0 | | V |
| Collector Current - Continuous | I _C | | | -6.0 | | A |
| Peak Collector Current | I _{CP} | | | -10 | | A |
| Base Current - Continuous | I _B | | | -2.0 | | A |
| Collector Power Dissipation | P _C | | | 2.0 | | W |
| Collector Power Dissipation | P _C (T _c =25°C) | | | 65 | | W |
| Junction Temperature | T _j | | | 150 | | °C |
| Storage Temperature Range | T _{sag} | | | -55~150 | | °C |

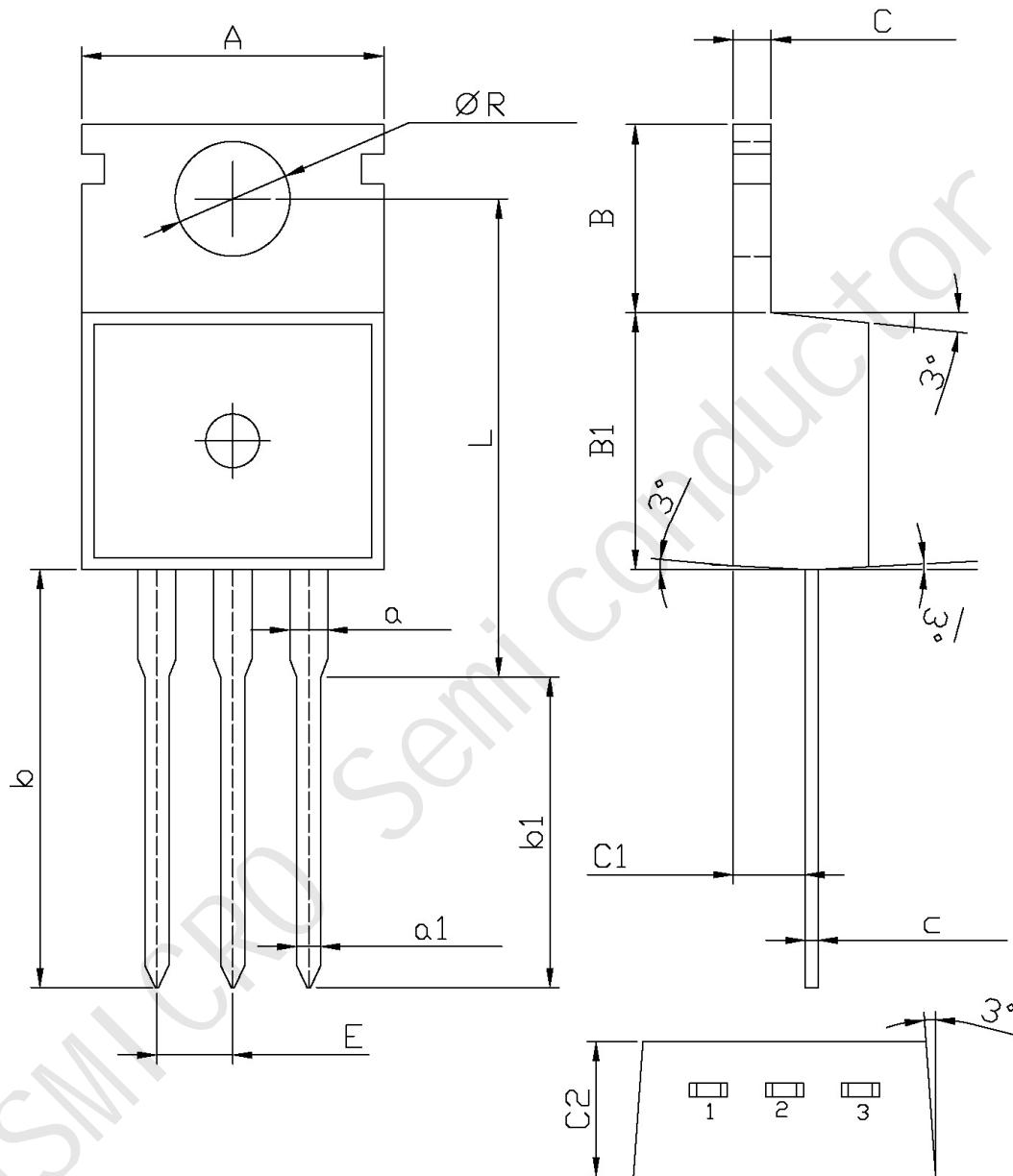
电性能参数 / Electrical Characteristics(Ta=25°C)

| 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 Emitter Breakdown Voltage | V_{CEO} | $I_C=-30mA \quad I_B=0$ | -40 | | | V |
| | | | -60 | | | |
| | | | -80 | | | |
| | | | -100 | | | |
| Collector Cut-Off Current | I_{CEO} | TIP42 TIP42A | $V_{CE}=-30V \quad I_B=0$ | | | -0.7 mA |
| | | TIP42B TIP42C | $V_{CE}=-60V \quad I_B=0$ | | | |
| Collector Cut-Off Current | I_{CES} | TIP42 | $V_{CE}=-40V \quad V_{EB}=0$ | | | -400 μA |
| | | TIP42A | $V_{CE}=-60V \quad V_{EB}=0$ | | | |
| | | TIP42B | $V_{CE}=-80V \quad V_{EB}=0$ | | | |
| | | TIP42C | $V_{CE}=-100V \quad V_{EB}=0$ | | | |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=-5.0V \quad I_C=0$ | | | -1.0 | mA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=-4.0V \quad I_C=-3.0A$ | 15 | | 75 | |
| | $h_{FE(2)}$ | $V_{CE}=-4.0V \quad I_C=-0.3A$ | 30 | | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=-6.0A \quad I_B=-0.6A$ | | | -1.5 | V |
| Base to Emitter Voltage | V_{BE} | $I_C=-6.0A \quad V_{CE}=-4.0V$ | | | -2.0 | V |
| Transition Frequency | f_T | $V_{CE}=-10V \quad I_C=-500mA$ | 3.0 | | | MHz |

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions



| Symbol | Dimensions In Millimeters | | Symbol | Dimensions In Millimeters | |
|--------|---------------------------|------|--------|---------------------------|-----|
| | Min | Max | | Min | Max |
| A | 9.8 | 10.2 | C | 1.2 | 1.4 |
| R | 3.56 | 3.64 | B | 6.3 | 6.7 |
| L | 15.7 | 16.1 | B1 | 9.0 | 9.4 |
| b | 12.6 | 13.6 | C1 | 2.2 | 2.6 |
| b1 | 9.6 | 10.6 | a | 0.7 | 0.9 |
| a | 1.22 | 1.32 | c | 0.4 | 0.6 |
| E | 2.34 | 2.74 | C2 | 4.3 | 4.7 |