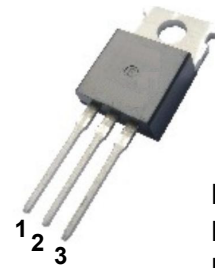


**描述 / Descriptions**

TO-220 塑封封装 NPN 半导体三极管。  
 Silicon NPN transistor in a TO-220 Plastic Package.

**特征 / Features**

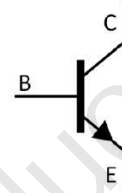
宽阔的安全工作区,于 2SA940 互补。  
 Wide Safe Operating Area, complementary to 2SA940.



PIN1 : Base  
 PIN 2 : Collector  
 PIN 3 : Emitter

**用途 / Applications**

用于功率放大和帧频输出。  
 Power amplifier applications, vertical output applications.

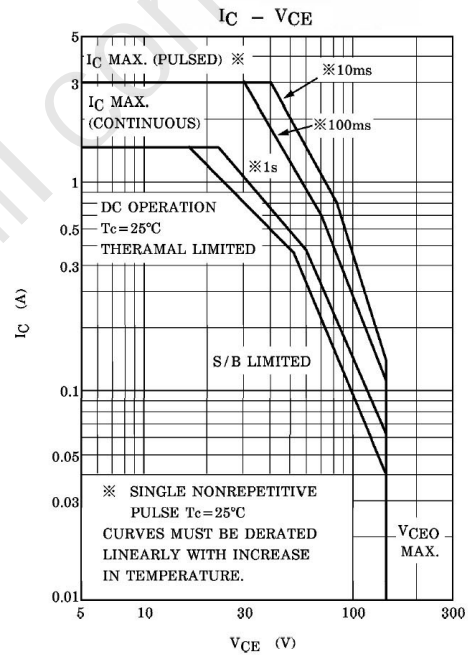
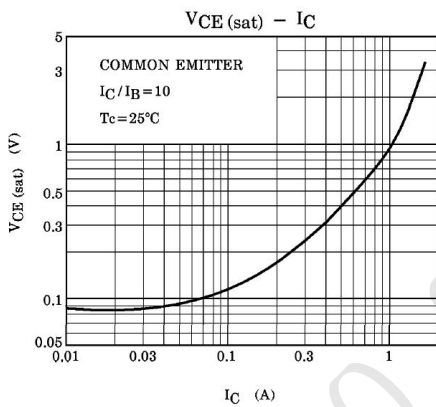
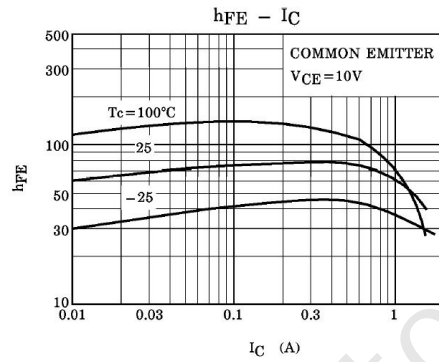
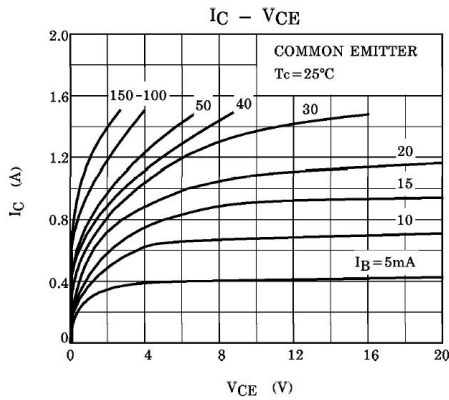

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

| 参数<br>Parameter                | 符号<br>Symbol                | 数值<br>Rating | 单位<br>Unit |
|--------------------------------|-----------------------------|--------------|------------|
| Collector to Base Voltage      | $V_{CBO}$                   | 150          | V          |
| Collector to Emitter Voltage   | $V_{CEO}$                   | 150          | V          |
| Emitter to Base Voltage        | $V_{EBO}$                   | 5.0          | V          |
| Collector Current - Continuous | $I_C$                       | 1.5          | A          |
| Base Current - Continuous      | $I_B$                       | 0.5          | A          |
| Collector Power Dissipation    | $P_C$                       | 2.0          | W          |
|                                | $P_C(T_c=25^\circ\text{C})$ | 25           | W          |
| Junction Temperature           | $T_j$                       | 150          | °C         |
| Storage Temperature Range      | $T_{stg}$                   | -55~150      | °C         |

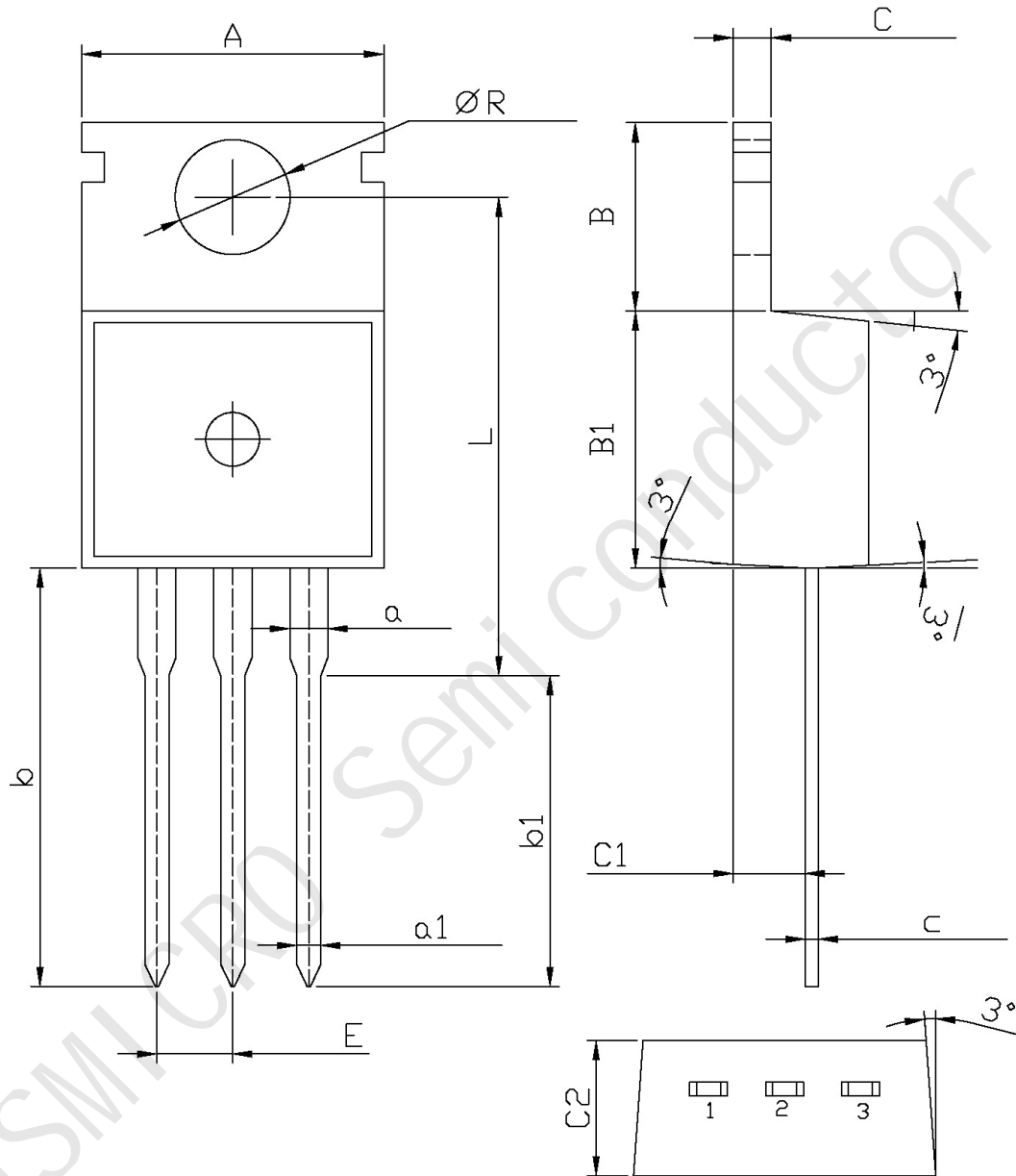
**电性能参数 / Electrical Characteristics(Ta=25°C)**

| 参数<br>Parameter                         | 符号<br>Symbol  | 测试条件<br>Test Conditions                   | 最小值<br>Min | 典型值<br>Typ | 最大值<br>Max | 单位<br>Unit    |
|---|---------------|---|------------|------------|------------|---------------|
| Collector Cut-Off Current               | $I_{CBO}$     | $V_{CB}=120V$ $I_E=0$                     |            |            | 10         | $\mu\text{A}$ |
| Emitter Cut-Off Current                 | $I_{EBO}$     | $V_{EB}=5.0V$ $I_C=0$                     |            |            | 10         | $\mu\text{A}$ |
| DC Current Gain                         | $h_{FE}$      | $V_{CE}=10V$ $I_C=500\text{mA}$           | 40         | 75         | 140        |               |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500\text{mA}$ $I_B=50\text{mA}$      |            |            | 1.5        | V             |
| Base to Emitter Voltage                 | $V_{BE}$      | $V_{CE}=10V$ $I_C=500\text{mA}$           | 0.65       | 0.75       | 0.85       | V             |
| Transition Frequency                    | $f_T$         | $V_{CE}=10V$ $I_C=500\text{mA}$           |            | 4.0        |            | MHz           |
| Collector output capacitance            | $C_{ob}$      | $V_{CB}=10V$ $I_E=0$<br>$f=1.0\text{MHz}$ |            | 35         |            | pF            |

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 | a1     | 0.7                       | 0.9 |
| a      | 1.22                      | 1.32 | c      | 0.4                       | 0.6 |
| E      | 2.34                      | 2.74 | C2     | 4.3                       | 4.7 |

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