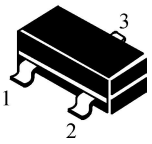
**SOT-23 Bipolar Transistor 双极型三极管**

SOT—23

1. BASE
2. EMITTER
3. COLLECTOR




**■Features 特点**

**PNP General Purpose 通用**

**■Absolute Maximum Ratings 最大额定值**

| Characteristic<br>特性参数 | Symbol<br>符号 | BC807-16/25/40 -6AF | BC808-16/25/40 -6AF | Unit<br>单位 |
|---|---|---|---|---|
| Collector-Base Voltage<br>集电极基极电压 | $V_{CBO}$ | -50 | -30 | V |
| Collector-Emitter Voltage<br>集电极发射极电压 | $V_{CEO}$ | -45 | -25 | V |
| Emitter-Base Voltage<br>发射极基极电压 | $V_{EBO}$ | -5 | -5 | V |
| Collector Current<br>集电极电流 | $I_C$ | -500 | -800 | mA |
| Power dissipation<br>耗散功率 | $P_C(T_a=25℃)$ | 300 | | mW |
| Thermal Resistance Junction-Ambient 热阻 | $R_{\Theta JA}$ | 417 | | ℃/W |
| Junction and Storage Temperature<br>结温和储藏温度 | $T_J,T_{stg}$ | -55to+150℃ | | |

**■Device Marking 产品打标**

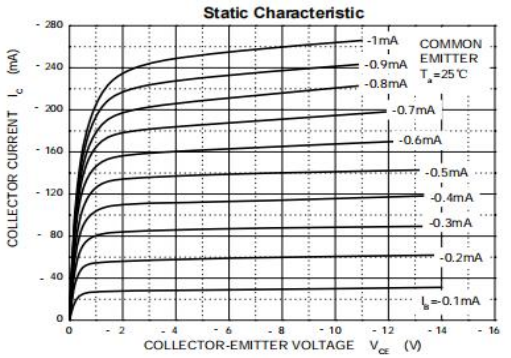
| $H_{FE}$ | | 100-250(-16) | 160-400(-25) | 250-600(-40) |
|---|---|---|---|---|
| Mark | BC807-16/25/40-6AF | 5A | 5B | 5C |
| | BC808-16/25/40-6AF | 5E | 5F | 5G |

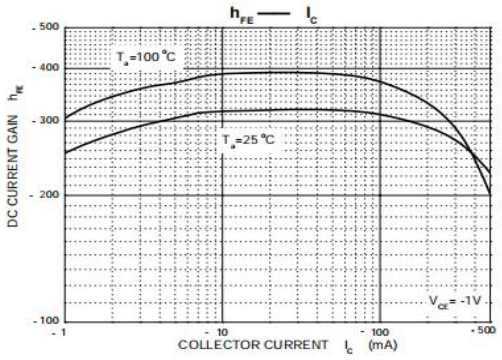
## ■Electrical Characteristics 电特性

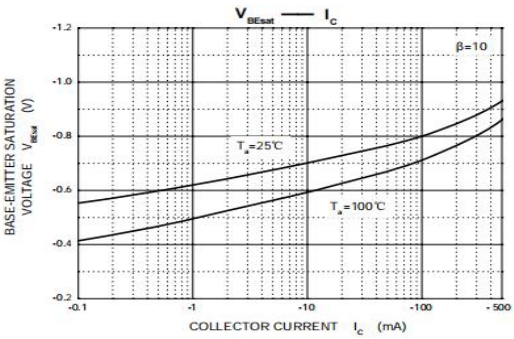
**($T_A$=25℃ unless otherwise noted** 如无特殊说明，温度为 25℃)

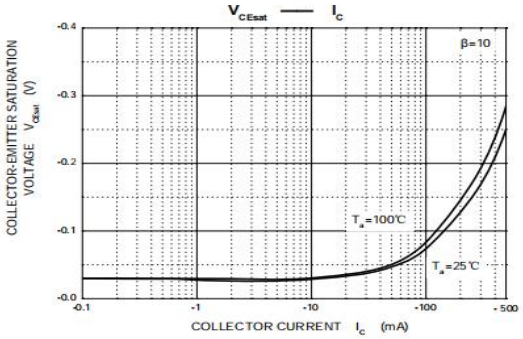
| Characteristic<br>特性参数 | | Symbol<br>符号 | Min<br>最小值 | Type<br>典型值 | Max<br>最大值 | Unit<br>单位 |
|---|---|---|---|---|---|---|
| Collector-Base Breakdown Voltage<br>集电极基极击穿电压<br>($I_C$= -10μA，$I_E$=0) | BC807-16/25/40-6AF<br>BC808-16/25/40-6AF | $BV_{CBO}$ | -50<br>-30 | — | — | V |
| Collector-Emitter Breakdown Voltage<br>集电极发射极击穿电压<br>($I_C$= -10mA，$I_B$=0) | BC807-16/25/40-6AF<br>BC808-16/25/40-6AF | $BV_{CEO}$ | -45<br>-25 | — | — | V |
| Emitter-Base Breakdown Voltage<br>发射极基极击穿电压<br>($I_E$= -10μA，$I_C$=0) | | $BV_{EBO}$ | -5 | — | — | V |
| Collector-Base<br>Leakage Current<br>集电极基极漏电流 | BC807-16/25/40-6AF<br>($V_{CB}$=-50V,$I_E$=0)<br>BC808-16/25/40-6AF<br>($V_{CB}$=-30V,$I_E$=0) | $I_{CBO}$ | — | — | -100 | nA |
| Emitter-Base Leakage Current<br>发射极基极漏电流<br>($V_{EB}$= -4V，$I_C$=0) | | $I_{EBO}$ | — | — | -100 | nA |
| DC Current Gain<br>直流电流增益<br>($V_{CE}$= -1V,$I_C$= -100mA) | BC807/BC808-16-6AF<br>BC807/BC808-25-6AF<br>BC807/BC808-40-6AF | $H_{FE}$ | 100<br>160<br>250 | — | 250<br>400<br>600 | |
| DC Current Gain 直流电流增益($V_{CE}$= -1V,$I_C$= -500mA) | | $H_{FE}$ | 40 | | | |
| Collector-Emitter Saturation Voltage<br>集电极发射极饱和压降($I_C$= -500mA，$I_B$= -50mA) | | $V_{CE(sat)}$ | — | — | -0.7 | V |
| Base-Emitter Saturation Voltage<br>基极发射极饱和压降($I_C$= -500mA，$I_B$= -50mA) | | $V_{BE(sat)}$ | — | — | -1.2 | V |
| Base-Emitter On Voltage<br>基极发射极导通电压($V_{CE}$= -1V，$I_C$= -300mA) | | $V_{BE(on)}$ | — | — | -1.2 | V |
| Transition Frequency<br>特征频率($V_{CE}$= -5V，$I_C$= -10mA) | | $f_T$ | 100 | — | — | MHz |
| Output Capacitance<br>输出电容($V_{CB}$= -10V，$I_E$=0, f=1MHz) | | $C_{ob}$ | — | 12 | — | pF |

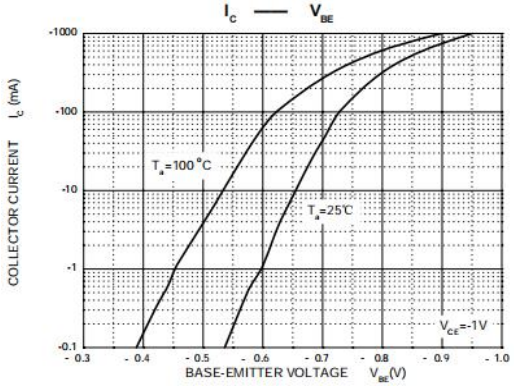
## ■Typical Characteristic Curve 典型特性曲线

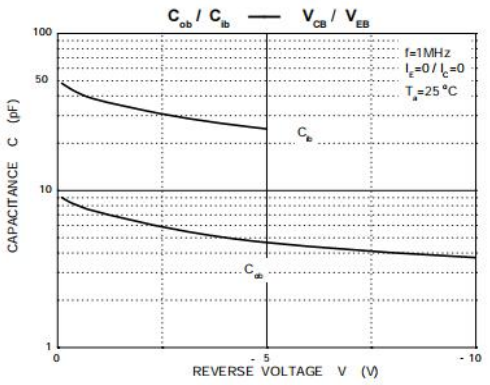


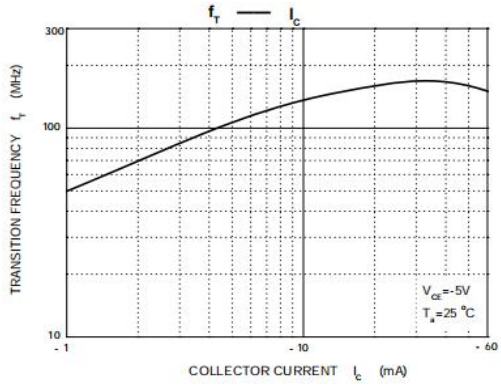



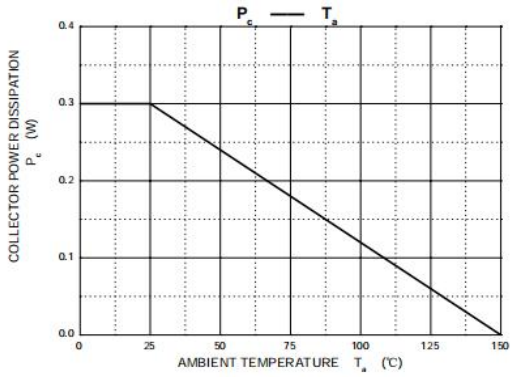



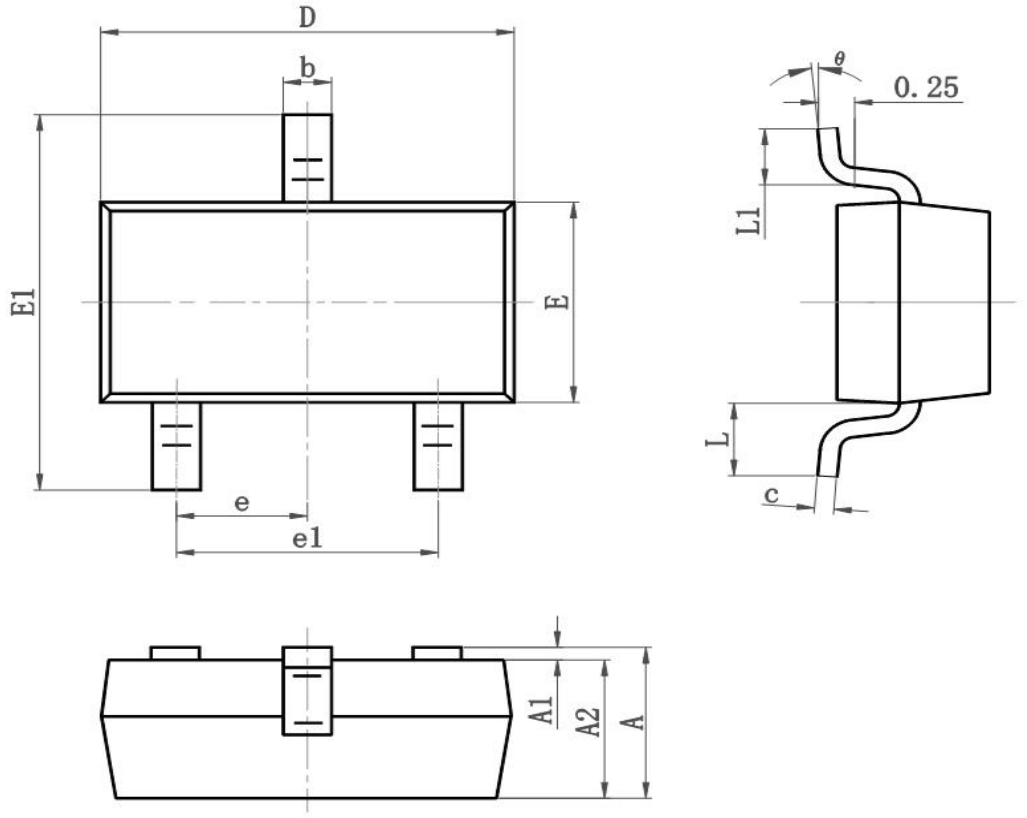



**■Dimension 外形封装尺寸**




| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.050 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.900 | 1.00 | 0.035 | 0.039 |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.500 | 0.600 | 0.020 | 0.024 |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |