

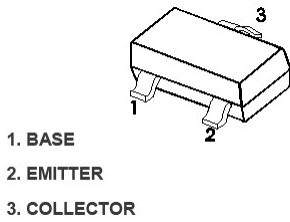
BC807 TRANSISTOR(PNP)

Rev.1.0

SOT-23

SOT-23 贴片塑封三极管

SOT-23 Plastic-Encapsulate Transistors



特征 Features

- 与 BC817 配对; Complementary to BC817
- 最大功率耗散 300mW; Power Dissipation of 300mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

| 参数 Parameters                               | 符号 Symbol        | 数值 Value | 单位 Unit |
|---|------------------|----------|---------|
| Collector-Base Voltage                      | V <sub>CBO</sub> | -50      | V       |
| Collector-Emitter Voltage                   | V <sub>CEO</sub> | -45      | V       |
| Emitter -Base Voltage                       | V <sub>EBO</sub> | -5       | V       |
| Collector Current-Continuous                | I <sub>C</sub>   | -500     | mA      |
| Collector Power Dissipation                 | P <sub>C</sub>   | 300      | mW      |
| Junction Temperature                        | T <sub>j</sub>   | 150      | °C      |
| Storage Temperature                         | T <sub>stg</sub> | -55-+150 | °C      |
| Thermal resistance from junction to ambient | R <sub>θJA</sub> | 417      | °C/W    |

电特性 (TA = 25°C 除非另有规定)

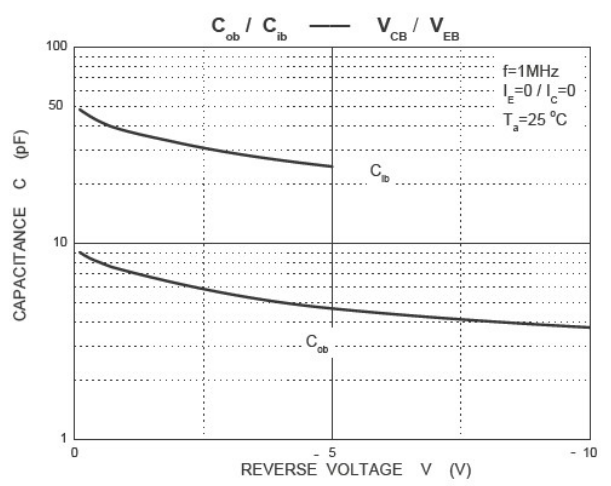
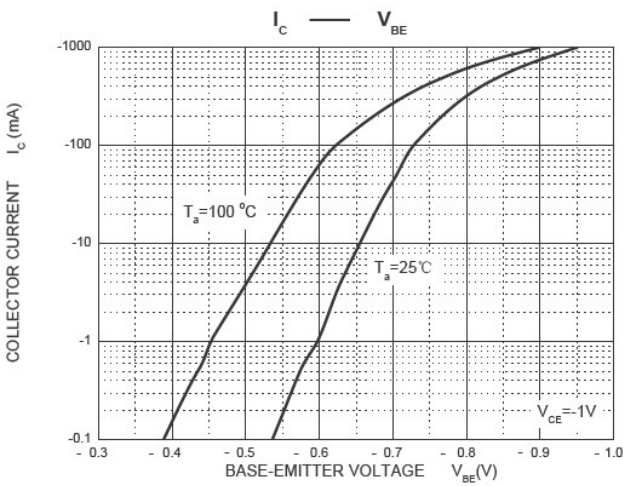
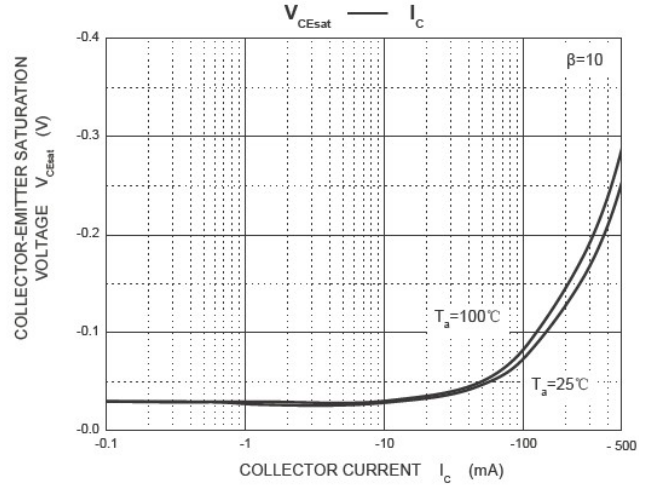
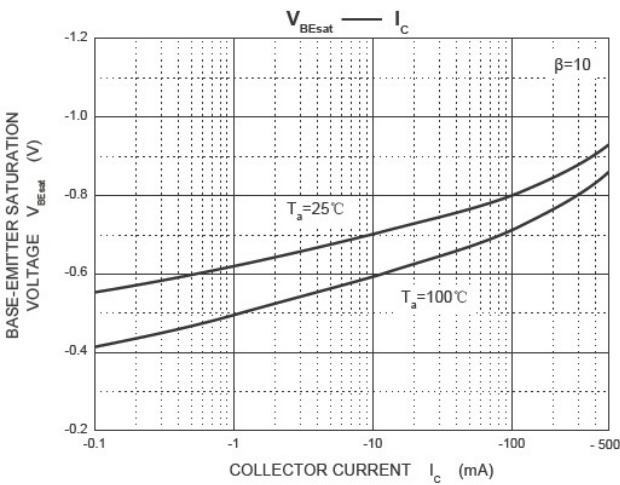
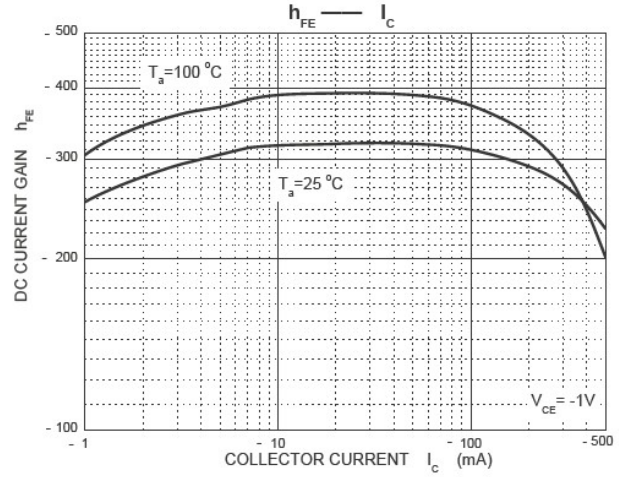
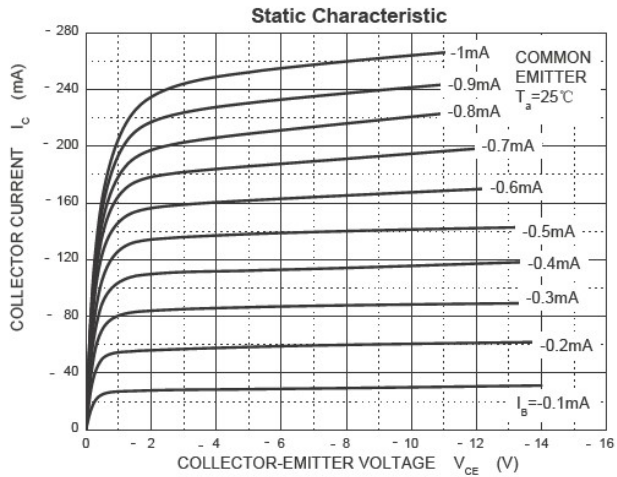
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

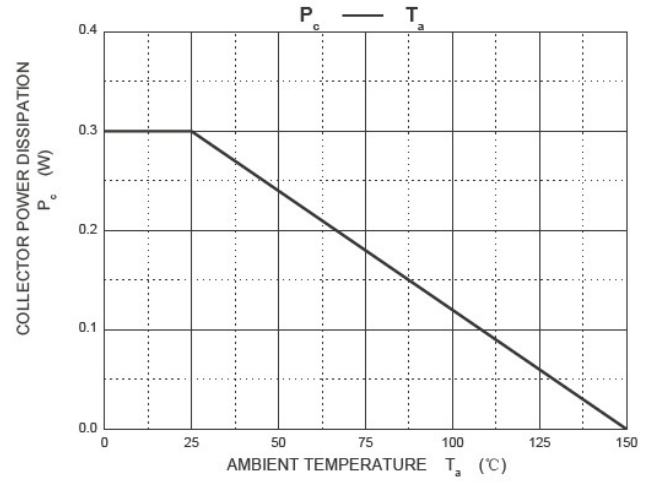
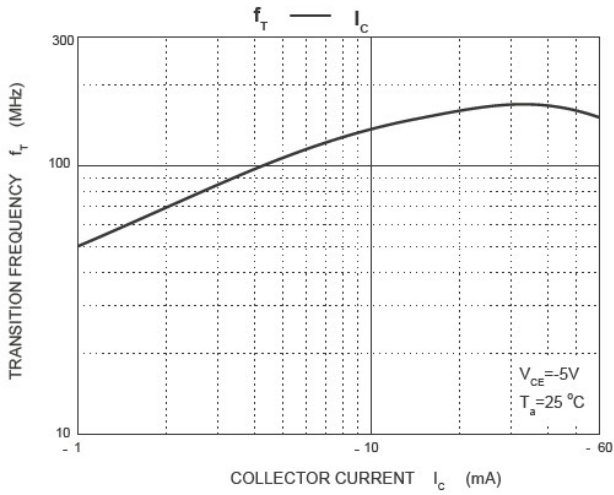
| 参数<br>Parameter                      | 符号<br>Symbols        | 测试条件<br>Test Condition                                | 界限 Limits |       | 单位<br>Unit |
|--------------------------------------|----------------------|---|-----------|-------|------------|
|                                      |                      |   | Min       | Max   |            |
| Collector-base breakdown voltage     | V(BR)CBO             | I <sub>C</sub> =-10μA, I <sub>E</sub> =0              | -50       |       | V          |
| Collector-emitter breakdown voltage  | V(BR)CEO             | I <sub>C</sub> =-10mA, I <sub>B</sub> =0              | -45       |       | V          |
| Emitter-base breakdown voltage       | V(BR)EBO             | I <sub>E</sub> =-1μA, I <sub>C</sub> =0               | -5        |       | V          |
| Collector cut-off current            | I <sub>CBO</sub>     | V <sub>CB</sub> =-45V, I <sub>E</sub> =0              |           | -100  | nA         |
| Emitter cut-off current              | I <sub>EBO</sub>     | V <sub>EB</sub> =-4V, I <sub>C</sub> =0               |           | -100  | nA         |
| DC current gain                      | h <sub>FE</sub> (1)  | V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA          | 100       | 600   |            |
|                                      | h <sub>FE</sub> (2)  | V <sub>CE</sub> =-1V, I <sub>C</sub> =-500mA          | 40        |       |            |
| Collector-emitter saturation voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA         |           | -0.70 | V          |
| Base -emitter saturation voltage     | V <sub>BE(sat)</sub> | I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA         |           | -1.20 | V          |
| Transition frequency                 | f <sub>T</sub>       | V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=100MHz | 100       |       | MHz        |

CLASSIFICATION OF h<sub>FE</sub>(1)

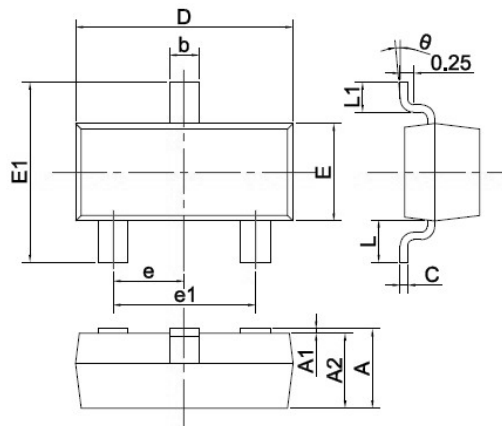
| RANK    | BC807-16 | BC807-25 | BC807-40 |
|---------|----------|----------|----------|
| RANGE   | 100-250  | 160-400  | 250-600  |
| Marking | 5A       | 5B       | 5C       |

Typical characteristics





**SOT-23 PACKAGE OUTLINE** Plastic surface mounted package

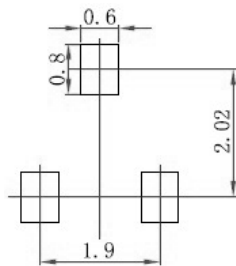


| SYMBOL   | DIMENSIONS |       |
|----------|------------|-------|
|          | MIN.       | MAX.  |
| A        | 0.900      | 1.150 |
| A1       | 0.000      | 0.100 |
| A2       | 0.900      | 1.050 |
| b        | 0.300      | 0.500 |
| c        | 0.080      | 0.150 |
| D        | 2.800      | 3.000 |
| E        | 1.200      | 1.400 |
| E1       | 2.250      | 2.550 |
| e        | 0.950TYP   |       |
| e1       | 1.800      | 2.000 |
| L        | 0.550REF   |       |
| L1       | 0.300      | 0.500 |
| $\theta$ | 0°         | 8°    |

Unit: mm

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



- Note:
1. Controlling dimension: In millimeters.
  2. General tolerance:  $\pm 0.05$ mm.
  3. The pad layout is for reference purposes only.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [SINEDEVICE manufacturer](#):*

Other Similar products are found below :

[BC559C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [NJVMJD148T4G](#) [NTE16](#) [NTE195A](#) [IMX9T110](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SB1204S-TL-E](#) [2SC5488A-TL-H](#) [FMC5AT148](#) [2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC4618TLN](#) [CPH6501-TL-E](#) [BC856BW-13-F](#) [US6T6TR](#) [BAX18/A52R](#) [BC556/112](#) [IMZ2AT108](#) [MMST8098T146](#) [MCH6102-TL-E](#) [2N3879](#) [30A02MH-TL-E](#) [NTE13](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#) [JANTX2N2920L](#) [JANSR2N2907AUB](#) [CMLT3946EG TR](#) [SNSS40600CF8T1G](#) [CMLT3906EG TR](#) [GRP-DATA-JANS2N2907AUB](#) [GRP-DATA-JANS2N2222AUA](#) [MMDT3946FL3-7](#) [2N4240](#) [JANS2N3019](#) [MSB30KH-13](#) [2N2221AUB](#) [2SD1815T-TL-E](#) [2N6678](#) [2N2907Ae4](#) [JAN2N3507](#)