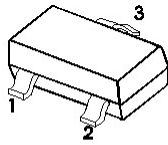


SOT-23

SOT-23 贴片塑封三极管
SOT-23 Plastic-Encapsulate Transistors



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

Marking: J8

特征 Features

- AM/FM Amplifier, Local Oscillator of FM/VHF Tuner
- 最大功率耗散 200mW; Power Dissipation of 200mW
- 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 _{CBO} | 30 | V |
| Collector-Emitter Voltage | V _{CEO} | 15 | V |
| Emitter -Base Voltage | V _{EBO} | 5 | V |
| Collector Current-Continuous | I _C | 50 | mA |
| Collector Power Dissipation | P _C | 200 | mW |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -55-+150 | °C |
| Thermal resistance From junction to ambient | R _{θJA} | 625 | °C/W |

电特性 (TA = 25°C 除非另有规定)

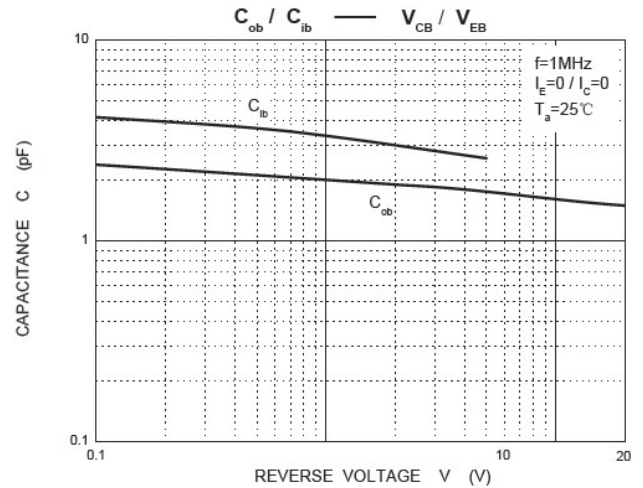
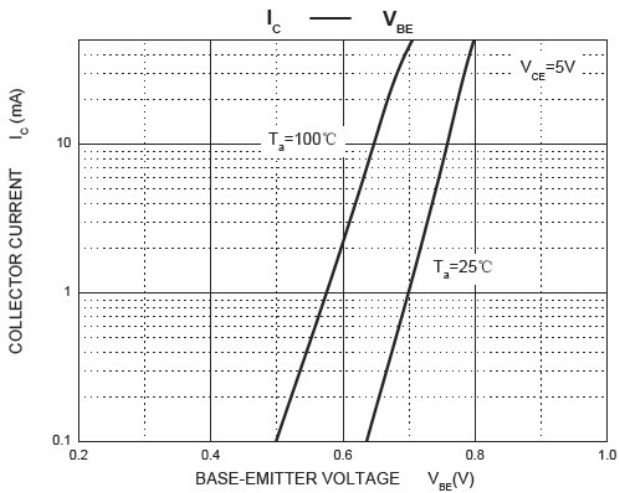
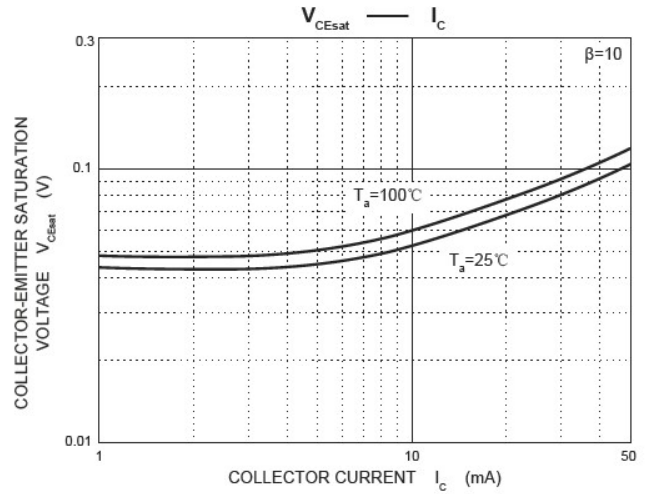
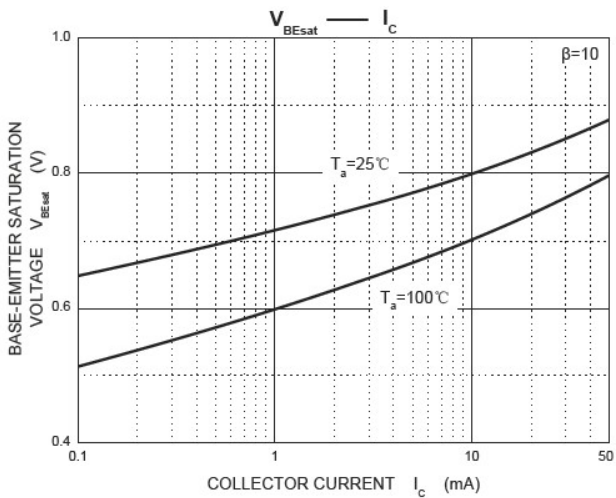
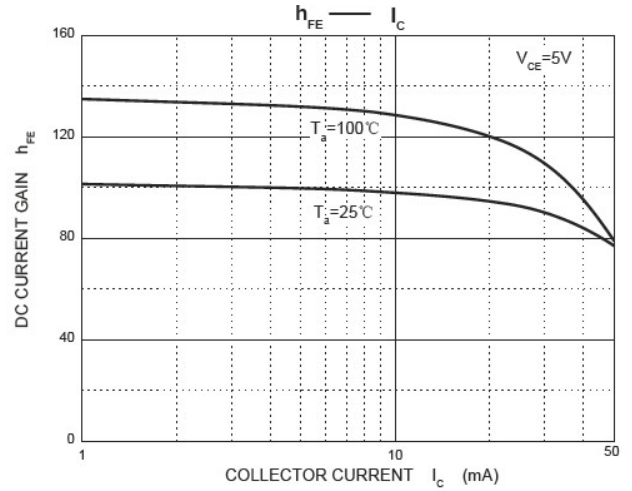
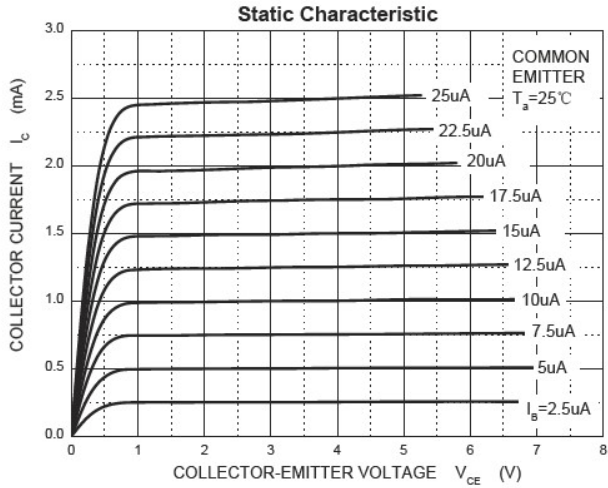
Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

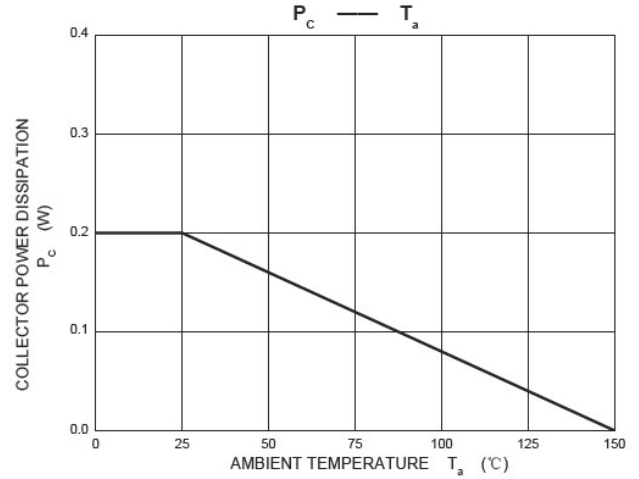
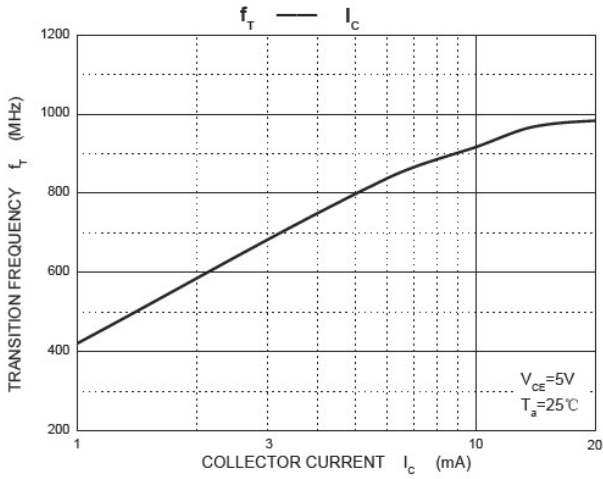
| 参数 Parameter | 符号 Symbols | 测试条件 Test Condition | 界限 Limits | | | 单位 Unit |
|--------------------------------------|----------------------|---|-----------|-----|------|------------|
| | | | Min | Typ | Max | |
| Collector-base breakdown voltage | V(BR)CBO | I _C =100uA, I _E =0 | 30 | | | V |
| Collector-emitter breakdown voltage | V(BR)CEO | I _C =1mA, I _B =0 | 15 | | | V |
| Emitter-base breakdown voltage | V(BR)EBO | I _E =100uA, I _C =0 | 5 | | | V |
| Collector cut-off current | I _{CEO} | V _{CE} =12V, I _B =0 | | | 100 | nA |
| Collector cut-off current | I _{CBO} | V _{CB} =12V, I _E =0 | | | 50 | nA |
| Emitter cut-off current | I _{EBO} | V _{EB} =3V, I _C =0 | | | 100 | nA |
| DC current gain | h _{FE} | V _{CE} =5V, I _C =1mA | 70 | | 190 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C =10mA, I _B =1mA | | | 0.50 | V |
| Base -emitter saturation voltage | V _{BE(sat)} | I _C =10mA, I _B =1mA | | | 1.40 | V |
| Transition frequency | f _t | V _{CE} =5V, I _C =5mA, f=400MHz | | 800 | | MHz |

CLASSIFICATION OF h_{FE}

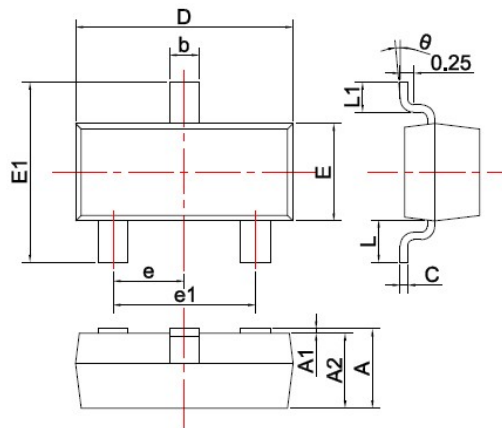
| RANK | L | H |
|-------|--------|---------|
| RANGE | 70-105 | 105-190 |

Typical characteristics





SOT-23 PACKAGE OUTLINE Plastic surface mounted package

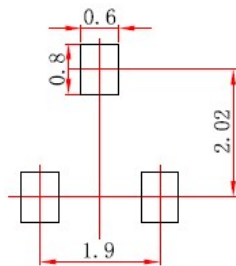


| SYMBOL | DIMENSIONS | |
|--------|------------|-------|
| | MIN. | MAX. |
| A | 0.900 | 1.150 |
| A1 | 0.000 | 0.100 |
| A2 | 0.900 | 1.050 |
| b | 0.300 | 0.500 |
| c | 0.080 | 0.150 |
| D | 2.800 | 3.000 |
| E | 1.200 | 1.400 |
| E1 | 2.250 | 2.550 |
| e | 0.950TYP | |
| e1 | 1.800 | 2.000 |
| L | 0.550REF | |
| L1 | 0.300 | 0.500 |
| θ | 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: ± 0.05mm.
 3. The pad layout is for reference purposes only.