

■ 描述 DESCRIPTIONS

SOT-23 塑封封装 NPN 三极管。NPN transistor in SOT-23 Plastic Package.

与 FHTA94 互补。Complementary to FHTA94

■ 应用 APPLICATIONS

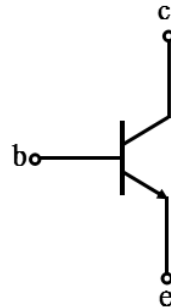
高压开关、放大电路。High voltage switching、blow up .

■ 引脚说明 PIN ASSIGNMENT



- 1 BASE
- 2 EMITTER
- 3 COLLECTOR

■ 内部等效电路 EQUIVALENT CIRCUIT



■ 型号构成 NAME RULE

| 基本名称 Name | | | 辅助识别代码 Additional code | | | |
|----------------|----------------|----------------|---------------------------|-------------------|-----------------|------------------------|
| 第一部分 Part 1 | 第二部分 Part 2 | 第三部分 Part 3 | 第四部分 Part 4 | 第五部分 Part 5 | 第六部分 Part 6 | 第七部分 Part 7 |
| 品牌 Brand | 产品类别 Type | 产品型号 Model | 分档 Value | 分隔号 Separatrix | 封装代码 Package | 附加码 (备用) Extra-code |
| FH | T: 三极管 | A44 | | "—" | M: SOT-23 | E: ROHS |

■ 额定值 ABSOLUTE MAXIMUM RATINGS (TC=25°C unless otherwise noted)

| 特性参数 CHARACTERISTIC | 符号 SYMBOL | 额定值 RATING | 单位 UNIT |
|--|--------------|---------------|------------|
| 集电极-基极电压 Collector-Base Voltage | V_{CBO} | 400 | V |
| 集电极-发射极电压 Collector-Emitter Voltage | V_{CEO} | 400 | V |
| 发射极-基极电压 Emitter-Base Voltage | V_{EBO} | 6 | V |
| 集电极电流 Collector Current | I_C | 200 | mA |
| 集电极脉冲电流 Collector Current-Pulsed | I_{CM} | 300 | mA |
| 集电极耗散功率 Collector Power Dissipation | P_C | 350 | mW |
| 结温 Junction Temperature | T_j | 150 | °C |
| 储存温度 Storage Temperature | T_{stg} | - 55~150 | °C |

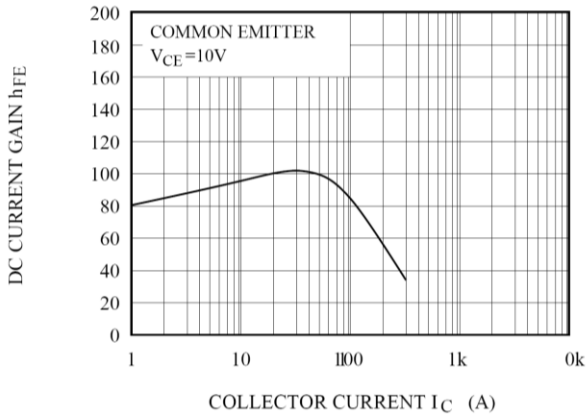
■ 电特性 ELECTRICAL CHARACTERISTICS

(TA=25°C unless otherwise noted 如无特殊说明, 温度为 25°C)

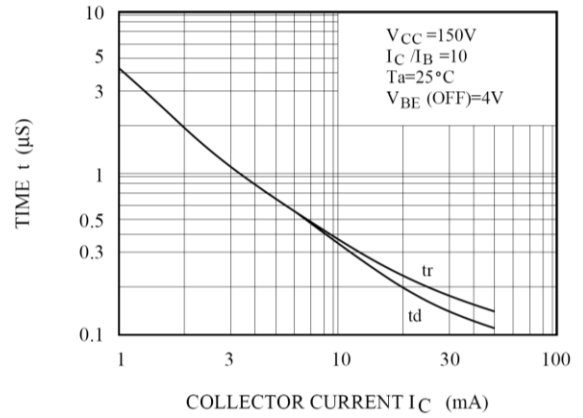
| 特性参数 CHARACTERISTIC | 符号 SYMBOL | 测试条件 TEST CONDITIONS | 最小值 MIN. | 典型值 TYP. | 最大值 MAX. | 单位 UNIT |
|---|---------------|-------------------------|-------------|-------------|-------------|------------|
| 直流电流增益 DC Current Gain | h_{FE} | VCE= 10V, Ic= 1mA | 40 | | | |
| | | VCE= 10V, Ic= 10mA | 40 | | | |
| | | VCE= 10V, Ic= 30mA | 40 | | | |
| 集电极截止电流 Collector Cutoff Current | I_{CBO} | VCB= 300V, IE=0 | | | 0.1 | μA |
| 发射极-基极截止电流 Emitter Cut-off Current | I_{EBO} | VEB= 6V, Ic=0 | | | 0.1 | μA |
| 集电极-基极击穿电压 Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | Ic= 0.1mA, IE=0 | 400 | | | V |
| 集电极-发射极击穿电压 Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | Ic= 5mA, IB=0 | 400 | | | V |
| 发射极-基极击穿电压 Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | IE= 0.1mA, Ic=0 | 6 | | | V |
| 集电极-发射极饱和压降 Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | Ic= 20mA, IB= 2mA | | | 0.5 | V |
| 集电极-发射极饱和压降 Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | Ic= 20mA, IB= 2mA | | | 0.9 | V |

■ 典型特性 TYPICAL CHARACTERISTICS

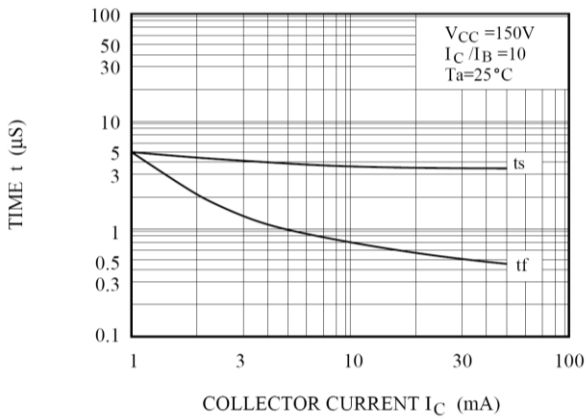
$h_{FE} - I_C$



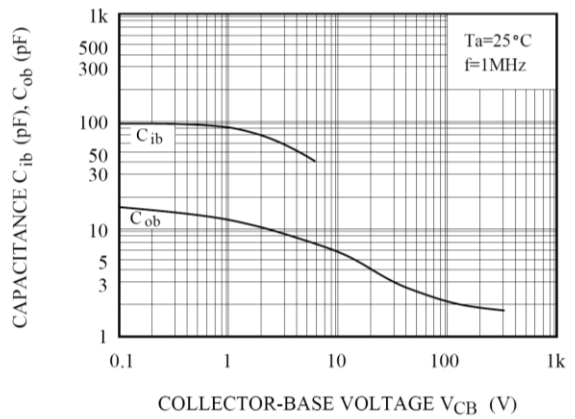
TURN-ON SWITCHING CHARACTERISTICS



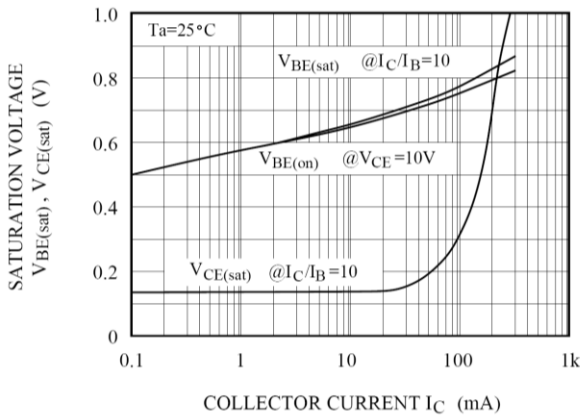
TURN-OFF SWITCHING CHARACTERISTICS



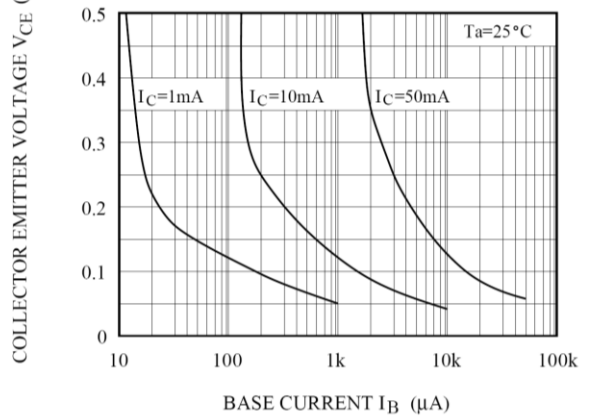
$C_{ib}, C_{ob} - V_{CB}$

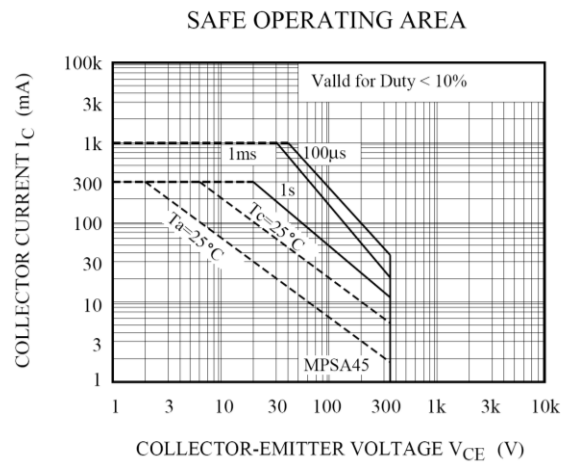
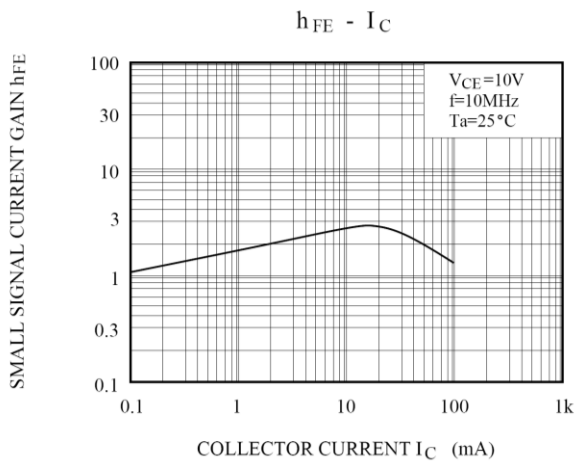


$V_{BE(sat)}, V_{CE(sat)} - I_C$

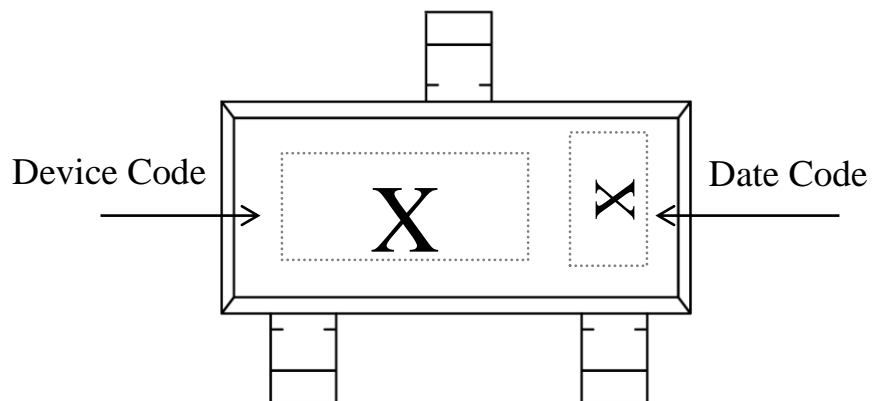


COLLECTOR SATURATION REGION

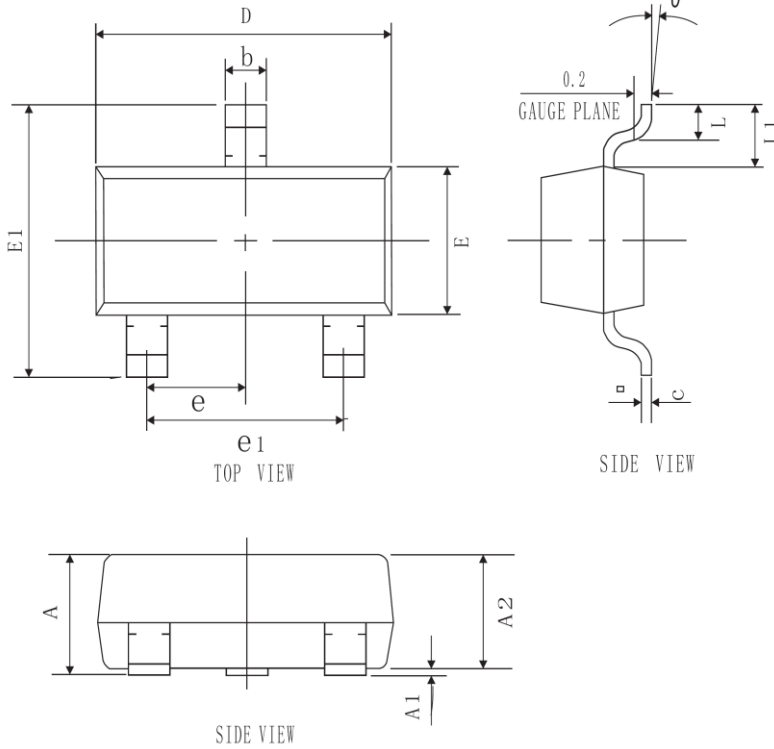




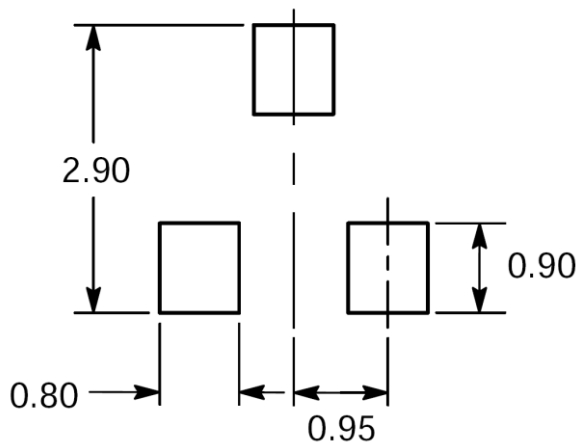
■ 打标 DEVICE MARKING



| | |
|----------------|-----------|
| Device | FHTA44-ME |
| h_{FE} Range | ≥ 40 |
| Code | 1Z |

外形尺寸 PACKAGE OUTLINE DIMENSIONS
SOT-23 Package


| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.90 | 1.20 | 0.035 | 0.047 |
| A1 | 0.00 | 0.10 | 0.000 | 0.004 |
| A2 | 0.90 | 1.10 | 0.035 | 0.043 |
| b | 0.30 | 0.50 | 0.012 | 0.020 |
| c | 0.08 | 0.15 | 0.003 | 0.006 |
| D | 2.80 | 3.00 | 0.110 | 0.118 |
| E | 1.20 | 1.40 | 0.047 | 0.055 |
| E1 | 2.30 | 2.50 | 0.091 | 0.098 |
| L | 0.30 | 0.50 | 0.012 | 0.020 |
| θ | 0° | 10° | 0° | 10° |
| L1 | 0.55 REF | | 0.022 REF | |
| e | 0.95 REF | | 0.037 REF | |
| e1 | 1.90 REF | | 0.075 REF | |

推荐焊盘布局 RECOMMENDED SOLDERING FOOTPRINT


Note:

- 1、Dimensions: Millimeters
- 2、Tolerance: $\pm 0.05\text{mm}$

■ 包装信息 PACKING INFORMATION

| 材料名称 Material Name | 颜色 Color | 尺寸 Size | 数量 Quantity | 备注 Note |
|-----------------------|--------------|---------------|--|---|
| 卷盘 Reel | 蓝色 Blue | 7 " *8mm | 3K/盘 3K/Reel | |
| 内盒 Inner Case | 黄色 Yellow | 185*185*140mm | 30K/盒 (10 盘/盒) 30K/Case (10 Reel/ Case) | OHO2 |
| 外箱 Outer Box | 黄色 Yellow | 460*400*210mm | 180K/箱 (6 盒/箱) 180K/Box (6 Case/Box) | OXO2 |
| 标签 Label | 白色 White | 68*40mm | — | 贴卷盘、内盒、外箱 Label on reel、inner case、 outer box |