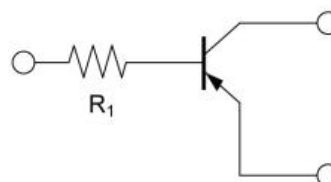
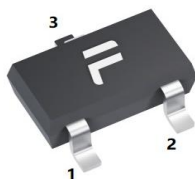


## SOT-23 Digital Transistor 数字晶体管

### ■Features 特点

1.Base 2.Emitter 3.Collector  
PNP With Bias Resistor Network  
带偏置电阻



### ■Absolute Maximum Ratings 最大额定值

| Characteristic 特性参数                         | Symbol 符号                     | Rat 额定值                      | Unit 单位                     |
|---------------------------------------------|-------------------------------|------------------------------|-----------------------------|
| Collector-Base Voltage 集电极基极电压              | $V_{CBO}$                     | -50                          | V                           |
| Collector-Emitter Voltage 集电极发射极电压          | $V_{CEO}$                     | -50                          | V                           |
| Collector Current 集电极电流                     | $I_C$                         | -100                         | mA                          |
| Power dissipation 耗散功率                      | $P_C(T_a=25^{\circ}\text{C})$ | 200                          | mW                          |
| Thermal Resistance Junction-Ambient 热阻      | $R_{\theta JA}$               | 625                          | $^{\circ}\text{C}/\text{W}$ |
| Junction and Storage Temperature<br>结温和储藏温度 | $T_J, T_{stg}$                | -55to+150 $^{\circ}\text{C}$ |                             |

### ■Device Marking 产品打标

DTA124TCA=95

**■Electrical Characteristics 电特性**

(TA=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>(IC= -10uA, IE=0)               | BV <sub>CBO</sub>    | -50        | —           | —          | V          |
| Collector-Emitter Breakdown Voltage<br>集电极发射极击穿电压<br>(IC= -2mA, IB=0)            | BV <sub>CEO</sub>    | -50        | —           | —          | V          |
| Emitter-Base Breakdown Voltage<br>发射极基极击穿电压<br>(IE= -10uA, IC=0)                 | BV <sub>EBO</sub>    | -5         | —           | —          | V          |
| Collector-Base Leakage Current<br>集电极基极漏电流<br>(V <sub>CB</sub> = -50V, IE=0)     | I <sub>CBO</sub>     | —          | —           | -50        | nA         |
| Collector-Emitter Leakage Current<br>集电极发射极漏电流<br>(V <sub>CE</sub> = -50V, IE=0) | I <sub>CEO</sub>     | —          | —           | -50        | nA         |
| Emitter-Base Leakage Current<br>发射极基极漏电流<br>(V <sub>EB</sub> = -5V, IC=0)        | I <sub>EBO</sub>     | —          | —           | -0.9       | mA         |
| DC Current Gain<br>直流电流增益<br>(V <sub>CE</sub> = -10V, IC= -5mA)                  | H <sub>FE</sub>      | 100        | 250         | —          |            |
| Collector-Emitter Saturation Voltage<br>集电极发射极饱和压降<br>(IC= -10mA, IB= -1mA)      | V <sub>CE(sat)</sub> | —          | —           | -0.3       | V          |
| Input Resistor<br>输入电阻                                                           | R <sub>I</sub>       | 15         | 22          | 29         | KΩ         |
| On Resistance 导通阻抗<br>(f=1kHz, IB= -1mA, VIN= -0.3V)                             | R <sub>ON</sub>      | —          | 0.6         | —          | Ω          |
| Transition frequency 特征频率<br>(VO= -10V, IO= -5mA)                                | f <sub>T</sub>       | —          | 250         | —          | MHz        |

■ Typical Characteristic Curve 典型特性曲线

Fig.1 Grounded emitter propagation characteristics

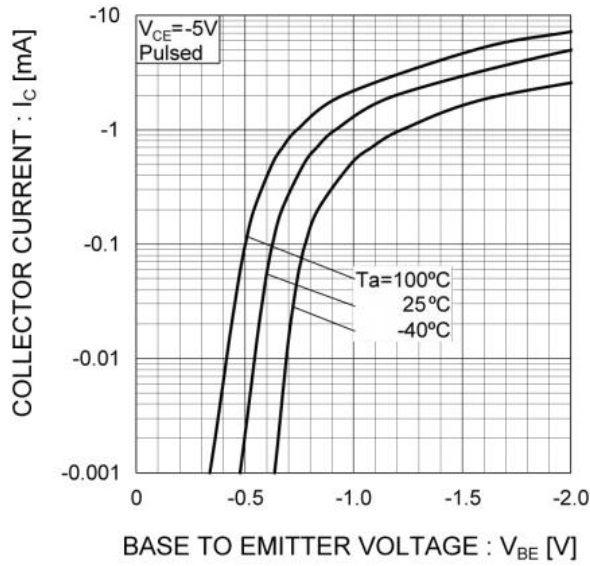


Fig.2 Typical Output Characteristics

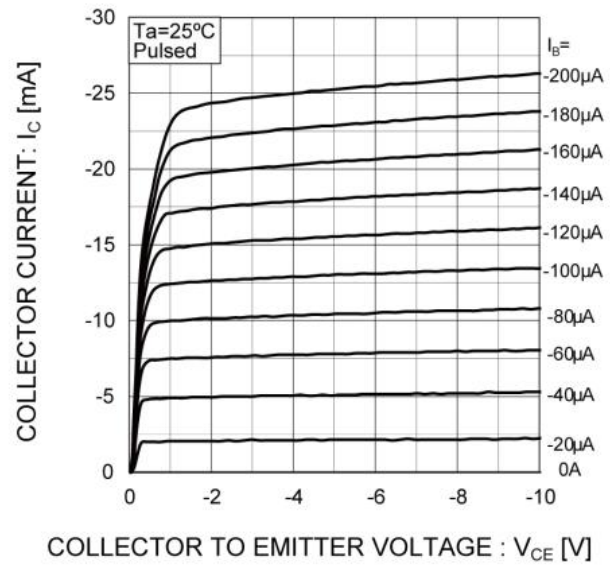


Fig.3 DC Current Gain vs. Collector Current

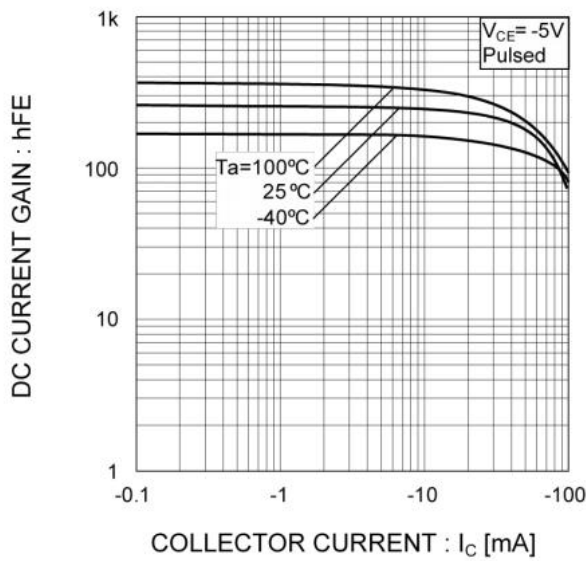
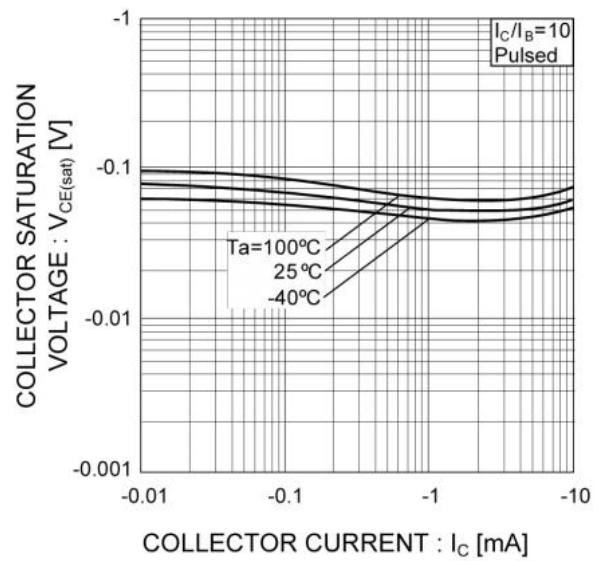
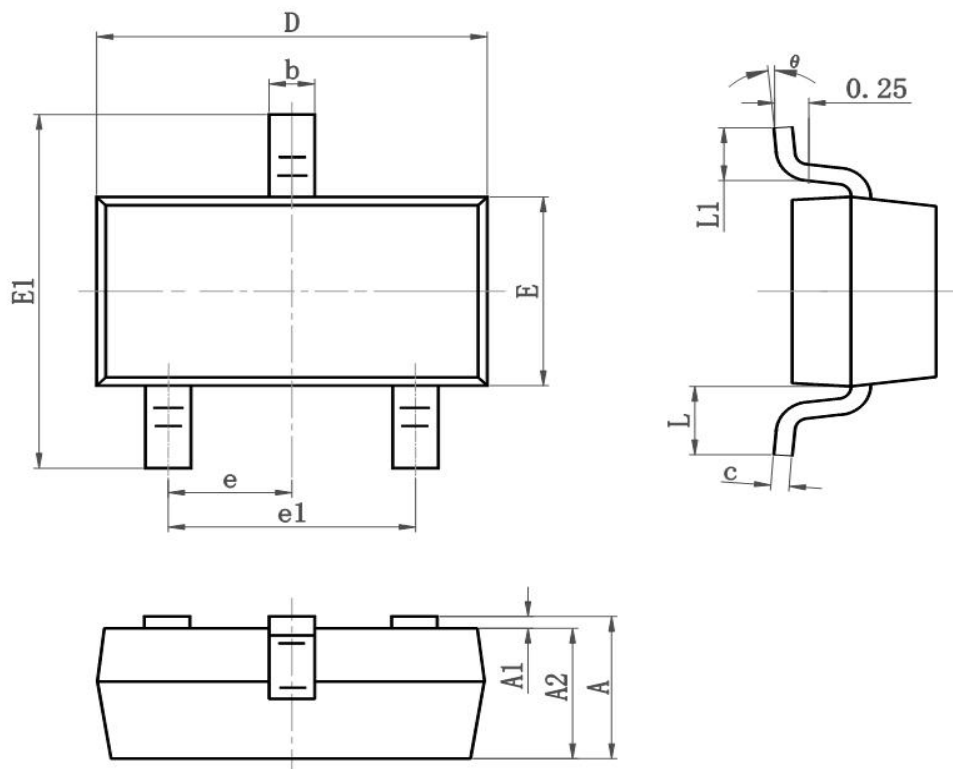


Fig.4 Collector-Emitter Saturation Voltage vs. Collector Current



■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°    |