

## SOT-23 Digital Transistor 数字晶体管

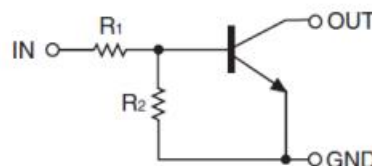
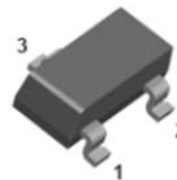
### ■ Features 特点

NPN With Bias Resistor Network  
带偏置电阻



### SOT-23

- 1. IN
- 2. GND
- 3. OUT



### ■ Absolute Maximum Ratings 最大额定值

| Characteristic 特性参数                         | Symbol 符号                     | Rat 额定值                      | Unit 单位                     |
|---------------------------------------------|-------------------------------|------------------------------|-----------------------------|
| Supply Voltage 电源电压                         | $V_{CC}$                      | 50                           | V                           |
| Input Voltage 输入电压                          | $V_{IN}$                      | -10~+40                      | V                           |
| Output Current 输出电流                         | $I_O$                         | 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

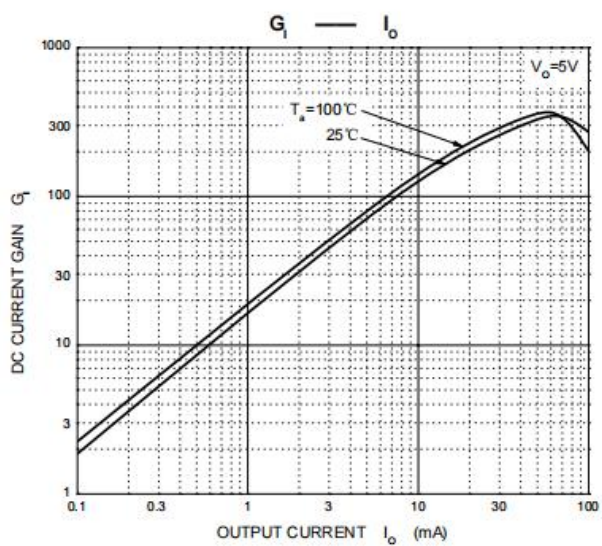
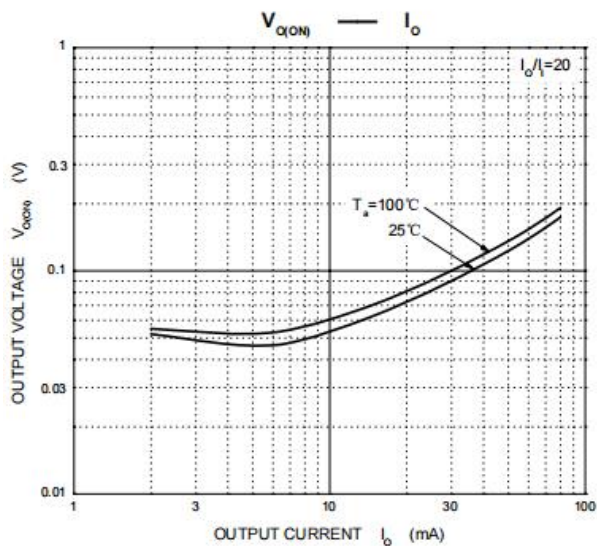
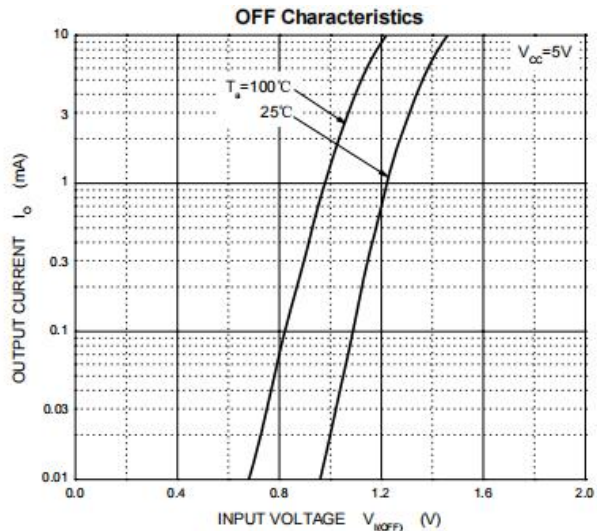
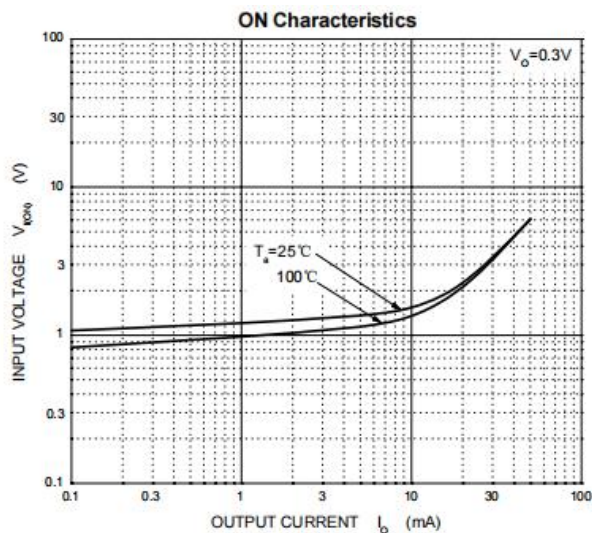
KRC106S=NF

**■Electrical Characteristics 电特性**

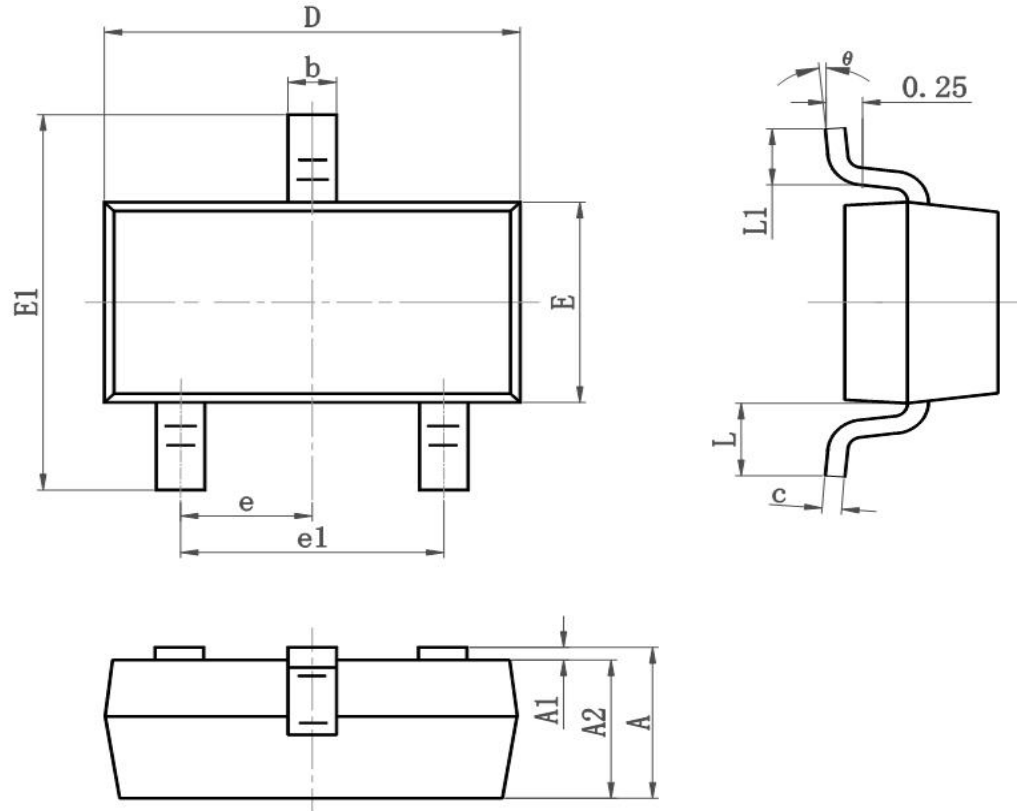
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

| 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 |
|----------------------------------------------------------------------------|--------------------------------|------------|-------------|------------|------------|
| Input Voltage 输入电压<br>(V <sub>CC</sub> =5V, I <sub>O</sub> =100μA)         | V <sub>I(off)</sub>            | 0.5        | —           | —          | V          |
| Input Voltage 输入电压<br>(V <sub>O</sub> =0.3V, I <sub>O</sub> =10mA)         | V <sub>I(on)</sub>             | —          | —           | 3          | V          |
| Output Voltage 输出电压<br>(I <sub>O</sub> /I <sub>I</sub> =10mA/0.5mA)        | V <sub>O(on)</sub>             | —          | —           | 0.3        | V          |
| Input Current 输入电流<br>(V <sub>I</sub> =5V)                                 | I <sub>I</sub>                 | —          | —           | 1.8        | mA         |
| Output Current 输出电流<br>(V <sub>CC</sub> =50V, V <sub>I</sub> =0)           | I <sub>O(off)</sub>            | —          | —           | 0.5        | μA         |
| DC Current Gain<br>直流电流增益<br>(V <sub>O</sub> =5V, I <sub>O</sub> =5mA)     | G <sub>I</sub>                 | 80         | —           | —          |            |
| Input Resistor<br>输入电阻                                                     | R <sub>I</sub>                 | 3.76       | 4.7         | 5.64       | KΩ         |
| Resistor Ratio<br>电阻比率                                                     | R <sub>2</sub> /R <sub>1</sub> | 8          | 10          | 12         |            |
| Transition frequency<br>特征频率<br>(V <sub>O</sub> =10V, I <sub>O</sub> =5mA) | f <sub>T</sub>                 | —          | 250         | —          | MHz        |

■ 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°    |