

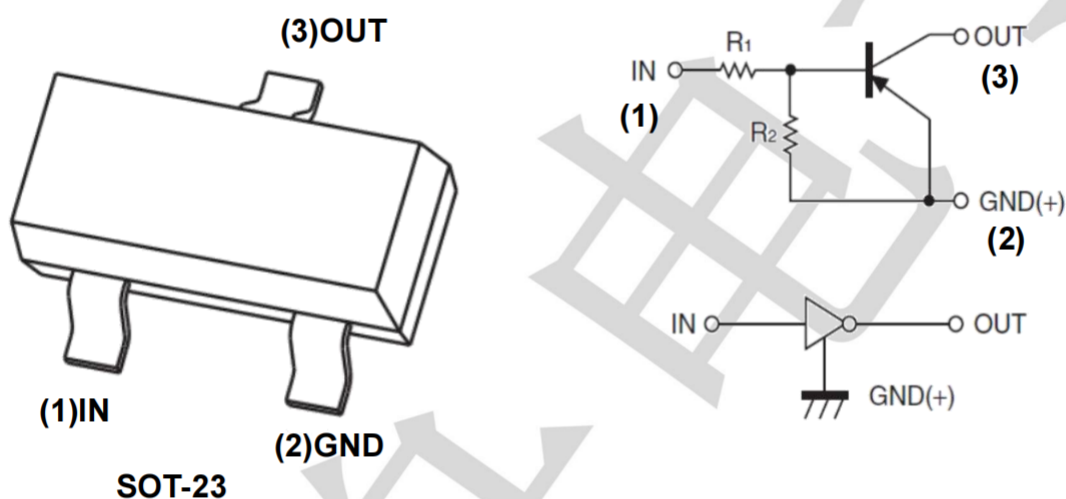
### Product Summary

- $V_{CC} = -50V$
- $I_C = -100mA$
- $R_1 = 10k\Omega$
- $R_2 = 47k\Omega$

### Features

- Built-in bias resistors
- making device design easy
- almost completely eliminating parasitic effects

### Circuit diagram and pin information



### Absolute Maximum Ratings

( $T_A = 25^\circ C$  unless otherwise specified)

| PARAMETER                                    | SYMBOL    | LIMIT       | UNIT       |
|----------------------------------------------|-----------|-------------|------------|
| Supply Voltage                               | $V_{CC}$  | -50         | V          |
| Input Voltage                                | $V_{IN}$  | -40~+6V     | V          |
| Collector current                            | $I_C$     | -100        | mA         |
| Power Total Dissipation @ $T_A = 25^\circ C$ | $P_D$     | 200         | mW         |
| Maximum Operating Junction Temperature       | $T_J$     | +150        | $^\circ C$ |
| Storage Temperature Range                    | $T_{STG}$ | -55 to +150 | $^\circ C$ |

### Electrical Characteristics

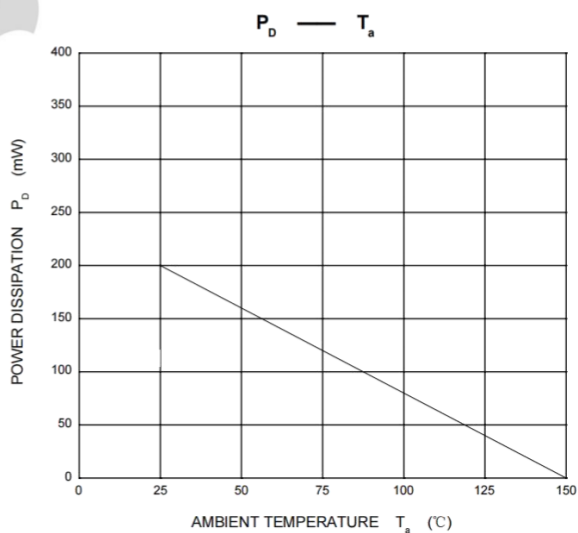
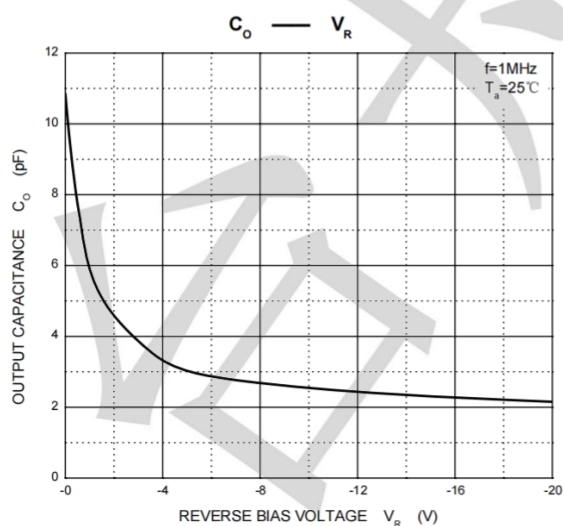
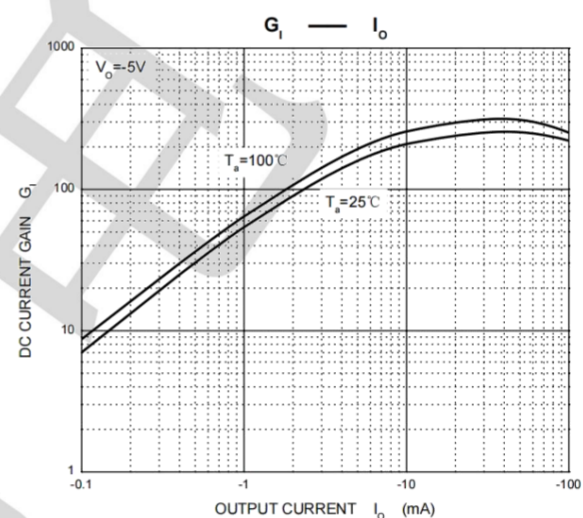
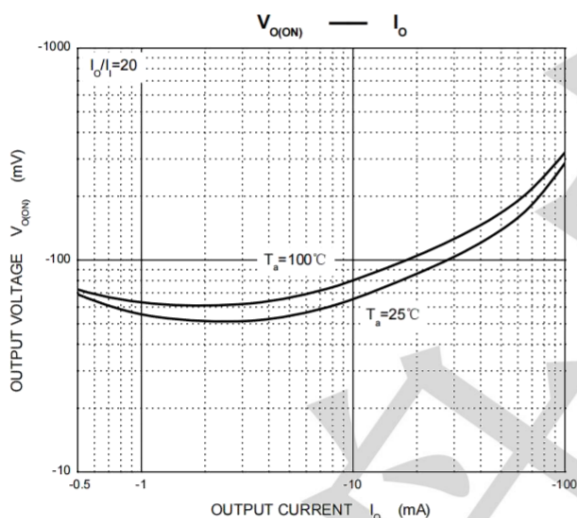
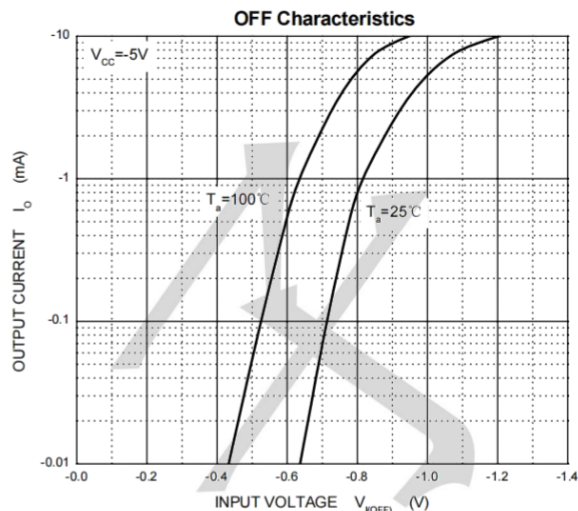
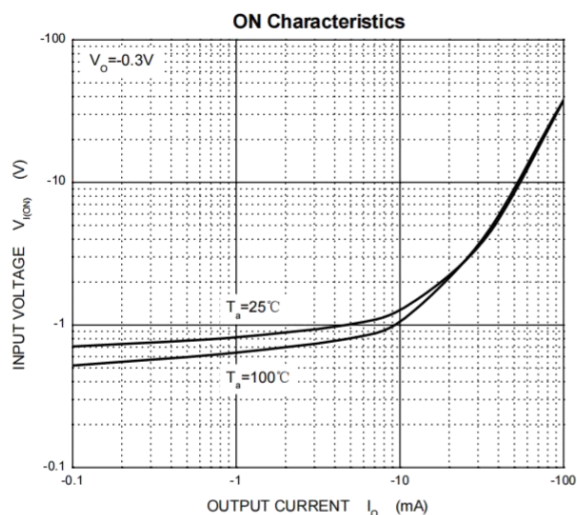
(TA=25°C unless otherwise specified)

| Parameter            | Symbol       | Conditions                         | Min  | Typ | Max  | Unit       |
|----------------------|--------------|------------------------------------|------|-----|------|------------|
| Input voltage        | $V_{I(off)}$ | $V_{CC}=-5V, I_O=-100\mu A$        | -0.3 | --  | --   | V          |
|                      | $V_{I(on)}$  | $V_O=-0.3V, I_O=-10mA$             | --   | --  | -1.4 | V          |
| Output voltage       | $V_{O(on)}$  | $I_O/I_I=-10mA/-0.5mA$             | --   | --  | -0.3 | V          |
| Input current        | $I_I$        | $V_I=-5V$                          | --   | --  | -0.8 | mA         |
| Output current       | $I_{O(off)}$ | $V_{CC}=-50V, V_I=0$               | --   | --  | -0.5 | $\mu A$    |
| DC current gain      | $G_I$        | $V_O=-5V, I_O=-10mA$               | 80   | --  | --   | --         |
| Input resistance     | $R_1$        |                                    | 7    | 10  | 13   | k $\Omega$ |
| Resistance ratio     | $R_2/R_1$    |                                    | 3.7  | 4.7 | 5.7  | --         |
| Transition frequency | $f_T$        | $V_O=-10V, I_O=-5mA,$<br>$=100MHz$ | --   | 250 | --   | MHz        |

Note:

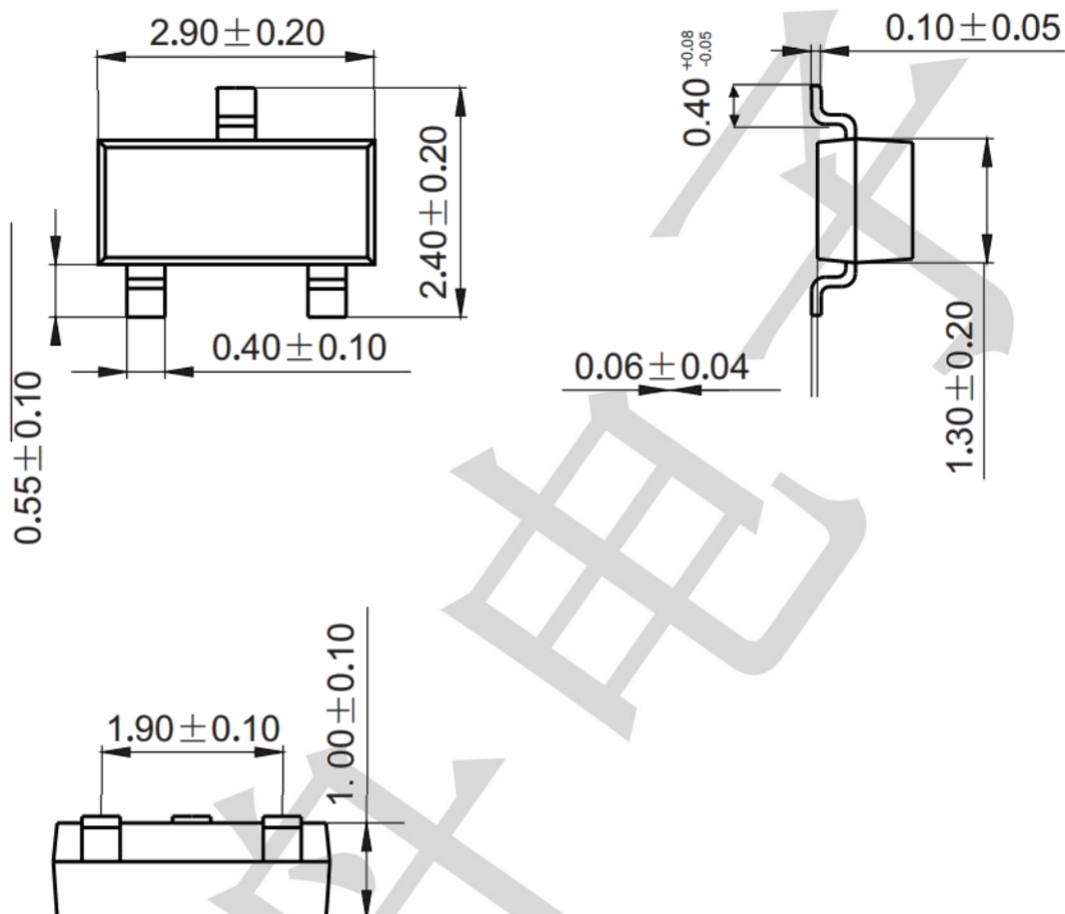
- 1.Characteristics of built-in transistor
- 2.Each terminal mounted on a reference land

**Typical Performance Characteristics(TA=25°C)**



**Package Outline Dimensions (unit: mm)**

SOT-23



**Mounting Pad Layout (unit: mm)**

