

Descriptions

- Switching application
- Interface circuit and driver circuit application

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

Ordering Information

| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| SRA2201E | 1R | SOT-523 |

Outline Dimensions

unit : mm

• Equivalent Circuit

PIN Connections

1. Base
2. Emitter
3. Collector

| R ₁ | R ₂ |
|----------------|----------------|
| 4.7KΩ | 4.7KΩ |

Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|----------------------|-----------|-----------|------|
| Out Voltage | V_O | -50 | V |
| Input Voltage | V_I | -20 | V |
| Out Current | I_O | -100 | mA |
| Power Dissipation | P_D | 150 | mW |
| Junction Temperature | T_J | 150 | °C |
| Storage Temperature | T_{STG} | -55 ~ 150 | °C |

Electrical Characteristics

(Ta=25°C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|------------------------|--------------|-----------------------------|------|------|------|------|
| Output Cut-off Current | $I_{O(OFF)}$ | $V_O = -50V, V_I = 0$ | - | - | -500 | nA |
| DC Current Gain | G_I | $V_O = -5V, I_O = -10mA$ | 30 | 55 | - | - |
| Output Voltage | $V_{O(ON)}$ | $I_O = -10mA, I_I = -0.5mA$ | - | -0.1 | -0.3 | V |
| Input Voltage (ON) | $V_{I(ON)}$ | $V_O = -0.2V, I_O = -5mA$ | - | -1.5 | -2.0 | V |
| Input Voltage (OFF) | $V_{I(OFF)}$ | $V_O = -5V, I_O = -0.1mA$ | -1.0 | -1.2 | - | V |
| Transition Frequency | f_T^* | $V_O = -10V, I_O = -5mA$ | - | 200 | - | MHz |
| Input Current | I_I | $V_I = -5V$ | - | - | -1.8 | mA |

* : Characteristic of Transistor Only

Electrical Characteristic Curves

Fig. 1 $I_o - V_{I(ON)}$

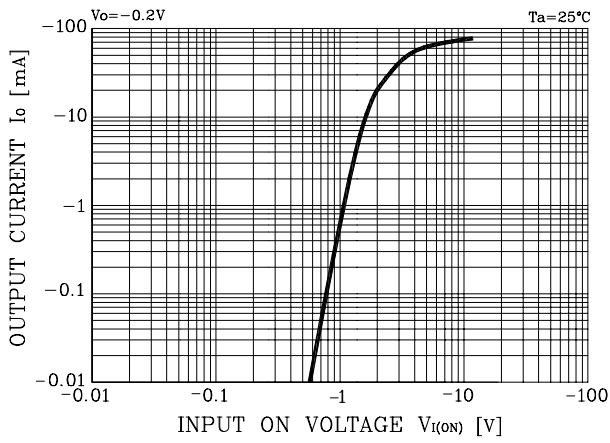


Fig. 2 $I_o - V_{I(OFF)}$

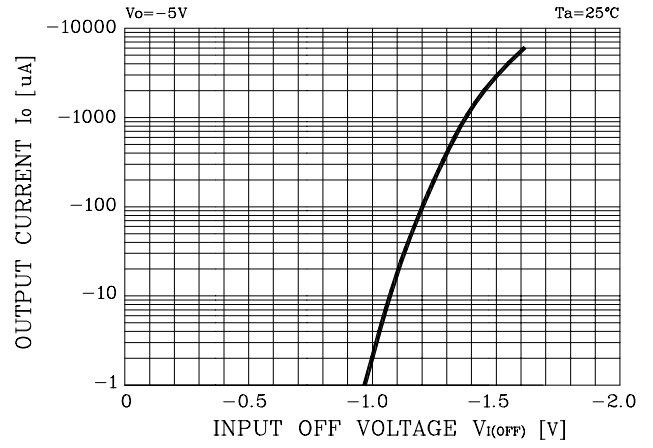


Fig. 3 $G_I - I_o$

