



SRA2203EF

PNP Silicon Transistor

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 |
|-----------|---------|--------------|
| SRA2203EF | 3R | SOT-523F |

Outline Dimensions

unit : mm

Top View Dimensions:

- Total width: 1.60 ± 0.1
- Distance between pins 1 and 2: 1.00 ± 0.1
- Distance between pins 2 and 3: 0.88 ± 0.1
- Pin 1 width: 0.68
- Pin 2 width: $0 - 0.1$
- Pin 3 width: 0.11 ± 0.05

Side View Dimensions:

- Maximum height: 1.60 ± 0.1
- Height to emitter: 1.00 ± 0.1
- Height to collector: $0.25 - 0.30$
- Base thickness: $0 - 0.1$
- Emitter thickness: 1.11 ± 0.05

• Equivalent Circuit

PIN Connections

1. Base
2. Emitter
3. Collector

| R ₁ | R ₂ |
|----------------|----------------|
| 22KΩ | 22KΩ |



Absolute maximum ratings**(Ta=25°C)**

| Characteristic | Symbol | Ratings | Unit |
|----------------------|-----------|-----------|------|
| Out Voltage | V_O | -50 | V |
| Input Voltage | V_I | -40 | 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 | $V_O=-5V, I_O=-10mA$ | 70 | 120 | - | - |
| Output Voltage | $V_{O(ON)}$ | $I_O=-10mA, I_I=-0.5mA$ | - | -0.1 | -0.3 | V |
| Input Voltage (ON) | $V_{I(ON)}$ | $V_O=-0.2V, I_O=-5mA$ | - | -2.1 | -3.0 | 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 | $V_I=-5V$ | - | - | -0.36 | mA |

* : Characteristic of Transistor Only

Electrical Characteristic Curves

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

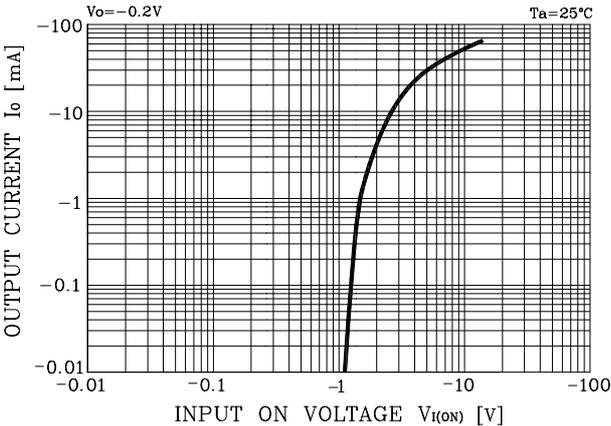


Fig. 2 $I_o - V_{I(OFF)}$

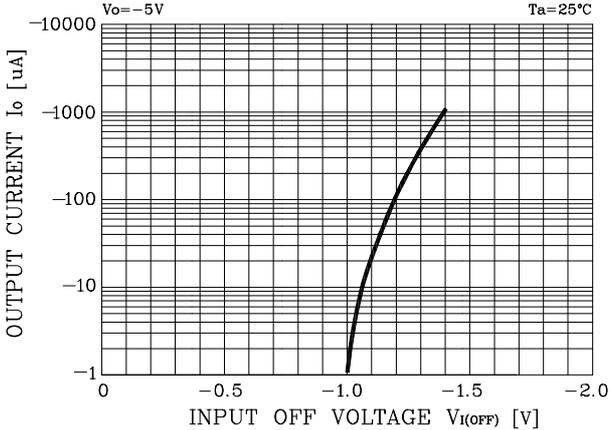


Fig. 3 $G_I - I_o$

