

## Descriptions

- Switching application
- Interface circuit and driver circuit application

## Features

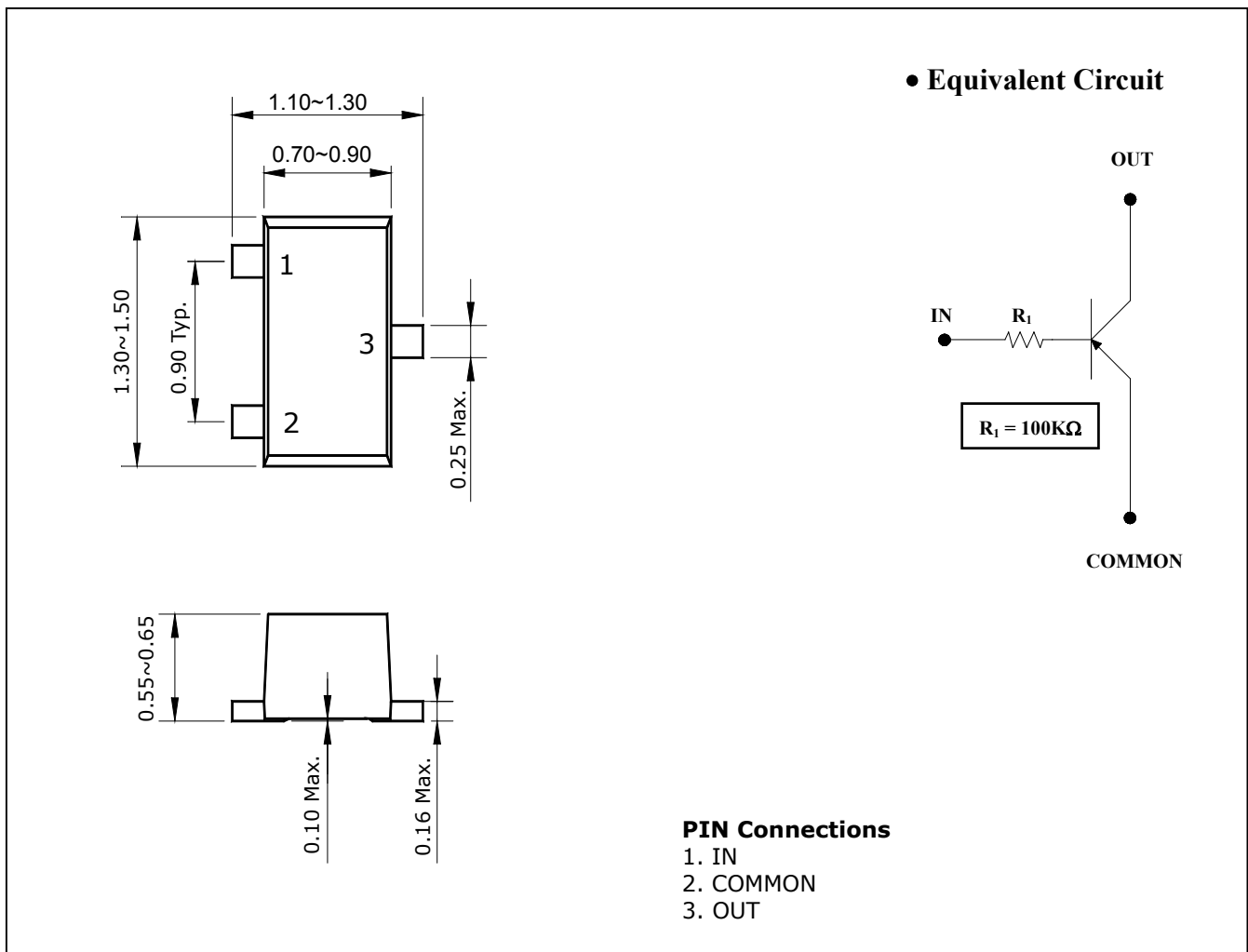
- With built-in bias resistor
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

## Ordering Information

| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| SRA2212K | BR      | SOT-623F     |

## Outline Dimensions

unit : mm



**Absolute Maximum Ratings**

(Ta=25°C)

| Characteristic            | Symbol    | Rating    | Unit |
|---------------------------|-----------|-----------|------|
| Output voltage            | $V_O$     | -50       | V    |
| Input voltage             | $V_I$     | -40, 5    | V    |
| Output current            | $I_O$     | -100      | mA   |
| Power dissipation         | $P_D$     | 100       | mW   |
| Junction temperature      | $T_J$     | 150       | °C   |
| Storage temperature range | $T_{stg}$ | -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                | $G_I$        | $V_O=-5V, I_O=-10mA$         | 120  | -    | -    | -          |
| Output voltage                 | $V_{O(ON)}$  | $I_O=-10mA, I_I=-0.5mA$      | -    | -0.1 | -0.3 | V          |
| Input voltage (ON)             | $V_{I(ON)}$  | $V_O=-0.2V, I_O=-5mA$        | -    | -    | -4.4 | V          |
| Input voltage (OFF)            | $V_{I(OFF)}$ | $V_O=-5V, I_O=-0.1mA$        | -0.3 | -    | -    | V          |
| Transition frequency           | $f_T^*$      | $V_O=-10V, I_O=-5mA, f=1MHz$ | -    | 200  | -    | MHz        |
| Input current                  | $I_I$        | $V_I=-5V, I_O=0$             | -    | -    | -0.1 | mA         |
| Input resistor (Input to base) | $R_1$        | -                            | 70   | 100  | 130  | K $\Omega$ |

\* : Characteristic of transistor only

Electrical Characteristic Curves

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

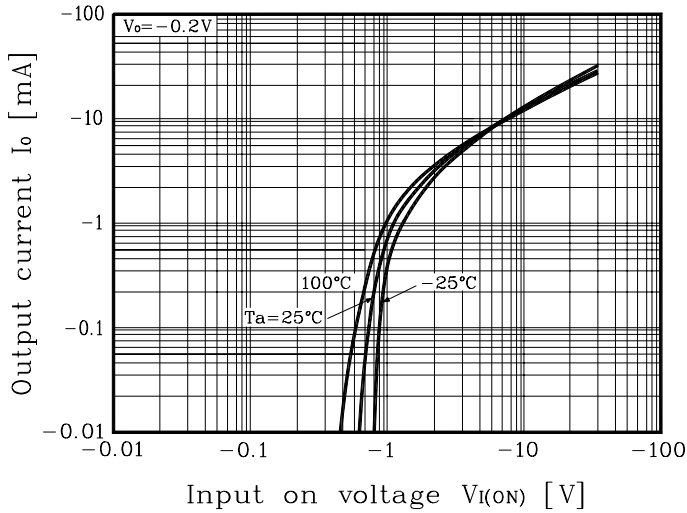


Fig. 2  $I_o - V_{I(OFF)}$

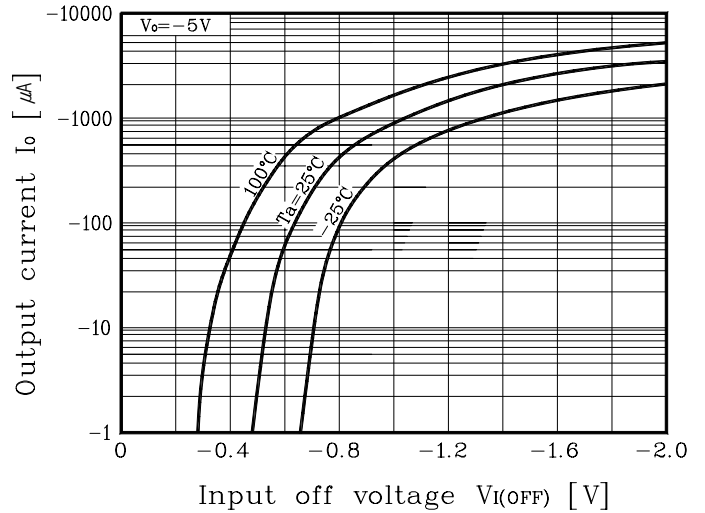
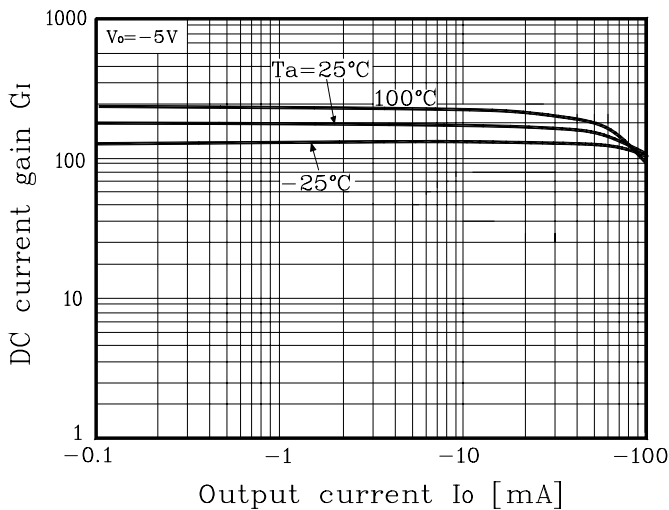


Fig. 3  $G_I - I_o$



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