

## Descriptions

- Switching application
- Interface circuit and driver circuit application

## Features

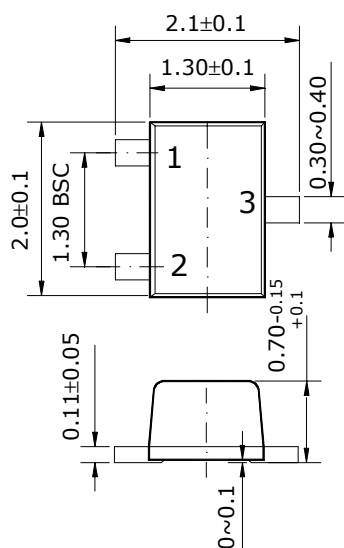
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

## Ordering Information

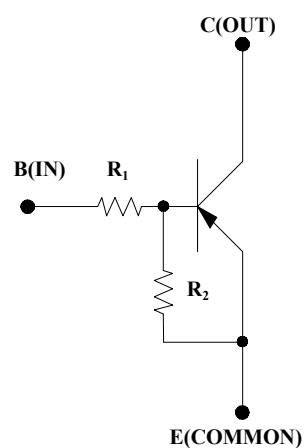
| Type NO.  | Marking | Package Code |
|-----------|---------|--------------|
| SRA2219UF | CR      | SOT-323F     |

## Outline Dimensions

unit : mm



### • Equivalent Circuit



### PIN Connections

1. Base
2. Emitter
3. Collector

| R <sub>1</sub> | R <sub>2</sub> |
|----------------|----------------|
| 4.7KΩ          | 10KΩ           |

**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    | $P_D$     | 200       | mW   |
| Junction Temperature | $T_J$     | 150       | °C   |
| Storage Temperature  | $T_{STG}$ | -55 ~ 150 | °C   |

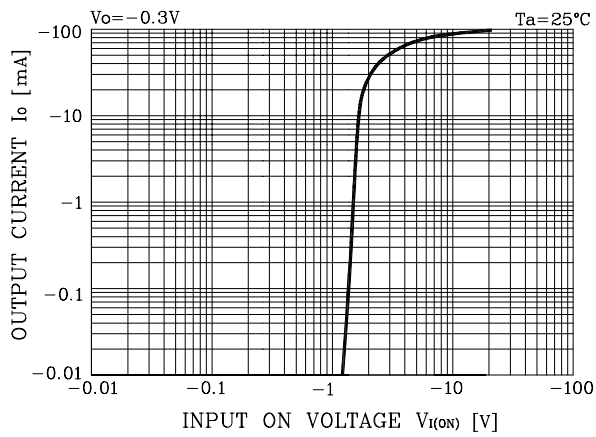
**Electrical Characteristics****(Ta=25°C)**

| 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   | -     | -    | -    |
| Output Voltage         | $V_{O(ON)}$  | $I_O = -10mA, I_I = -0.5mA$ | -    | -0.1  | -0.3 | V    |
| Input Voltage (ON)     | $V_{I(ON)}$  | $V_O = -0.3V, I_O = -20mA$  | -    | -1.76 | -2.5 | V    |
| Input Voltage (OFF)    | $V_{I(OFF)}$ | $V_O = -5V, I_O = -0.1mA$   | -0.3 | -0.82 | -    | V    |
| Transition Frequency   | $f_T^*$      | $V_O = -10V, I_O = -5mA$    | -    | 250   | -    | MHz  |
| Input Current          | $I_I$        | $V_I = -5V$                 | -    | -     | -1.8 | mA   |

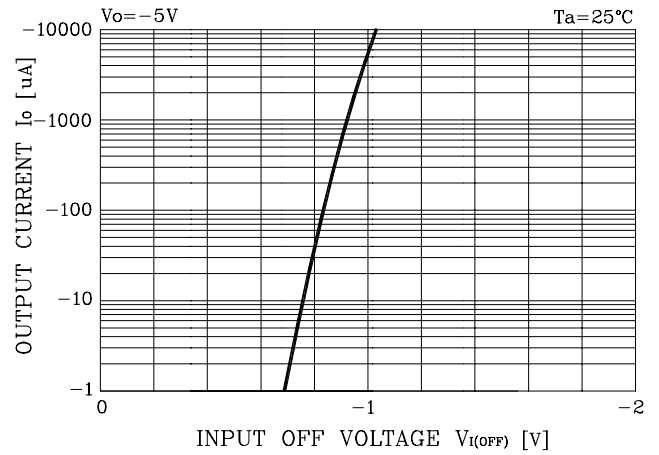
\* : Characteristic of Transistor Only

## Electrical Characteristic Curves

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



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



**Fig. 3  $G_I - I_O$**

