

## Descriptions

- Switching application
- Interface circuit and driver circuit application

## Features

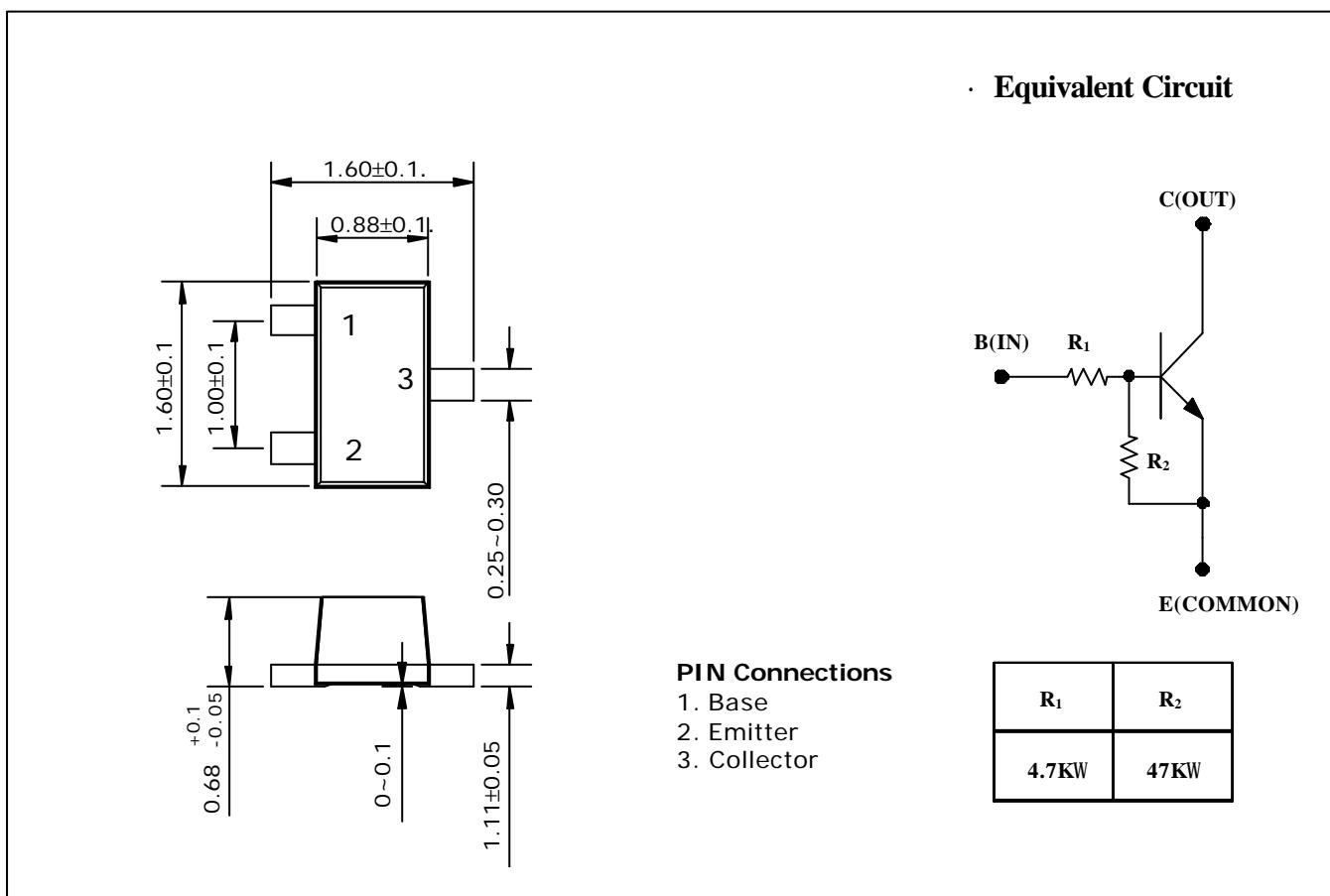
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

## Ordering Information

| Type NO.  | Marking | Package Code |
|-----------|---------|--------------|
| SRC1206EF | R6      | SOT-523F     |

## Outline Dimensions

unit : mm



**Absolute maximum ratings**

(Ta=25° C)

| Characteristic       | Symbol           | Ratings   | Unit |
|----------------------|------------------|-----------|------|
| Out Voltage          | V <sub>O</sub>   | 50        | V    |
| Input Voltage        | V <sub>I</sub>   | 20        | V    |
| Out Current          | I <sub>O</sub>   | 100       | mA   |
| Power Dissipation    | P <sub>D</sub>   | 150       | mW   |
| Junction Temperature | T <sub>J</sub>   | 150       | °C   |
| Storage Temperature  | T <sub>STG</sub> | -55 ~ 150 | °C   |

**Electrical Characteristics**

(Ta=25° C)

| Characteristic         | Symbol                      | Test Condition                              | Min. | Typ. | Max. | Unit |
|------------------------|-----------------------------|---|------|------|------|------|
| Output Cut-off Current | I <sub>O(OFF)</sub>         | V <sub>O</sub> =50V, V <sub>I</sub> =0      | -    | -    | 500  | nA   |
| DC Current Gain        | G <sub>I</sub>              | V <sub>O</sub> =5V, I <sub>O</sub> =10mA    | 80   | 200  | -    | -    |
| Output Voltage         | V <sub>O(ON)</sub>          | I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA | -    | 0.1  | 0.3  | V    |
| Input Voltage (ON)     | V <sub>I(ON)</sub>          | V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA   | -    | 0.9  | 1.3  | V    |
| Input Voltage (OFF)    | V <sub>I(OFF)</sub>         | V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA   | 0.5  | 0.65 | -    | V    |
| Transition Frequency   | f <sub>T</sub> <sup>*</sup> | V <sub>O</sub> =10V, I <sub>O</sub> =5mA    | -    | 200  | -    | MHz  |
| Input Current          | I <sub>I</sub>              | V <sub>I</sub> =5V                          | -    | -    | 1.8  | mA   |

\*: Characteristic of Transistor Only

## Electrical Characteristic Curves

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

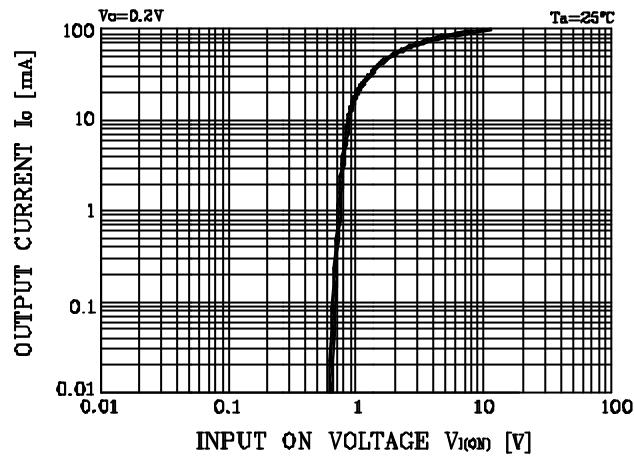


Fig. 2  $I_O - V_{I(OFF)}$

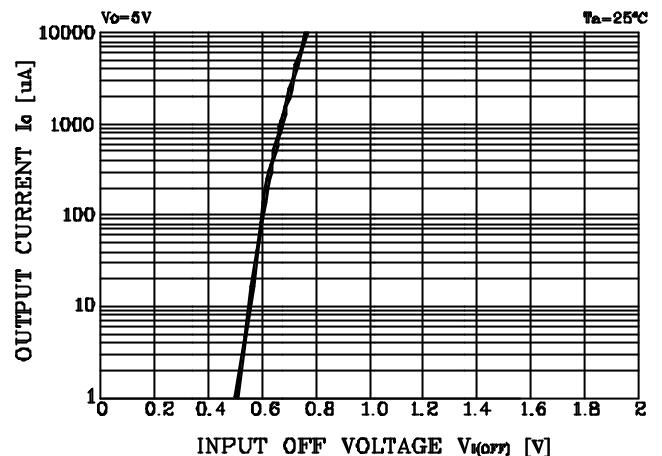


Fig. 3  $G_I - I_O$

