

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 |
|----------|---------|--------------|
| SRC1212E | RB | SOT-523 |

Outline Dimensions

unit : mm

• Equivalent Circuit

PIN Connections

1. Base
2. Emitter
3. Collector

Absolute maximum ratings

(Ta=25°C)

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|-----------|-----------|------|
| Collector-Base Voltage | V_{CBO} | 50 | V |
| Collector-Emitter Voltage | V_{CEO} | 50 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 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 |
|--------------------------------------|---------------|-----------------------|------|------|------|------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=50V, I_E=0$ | - | - | 500 | nA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=5V, I_C=0$ | - | - | 500 | nA |
| DC Current Gain | h_{FE} | $V_{CE}=5V, I_C=1mA$ | 120 | - | - | - |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | $I_C=10mA, I_B=0.5mA$ | - | 0.1 | 0.3 | V |
| Transition Frequency | f_T^* | $V_{CE}=10V, I_C=5mA$ | - | 250 | - | MHz |
| Input Resistance | R_1 | - | - | 100 | - | KΩ |

* : Characteristic of Transistor Only

Electrical Characteristic Curves

Fig. 1 $h_{FE} - I_C$

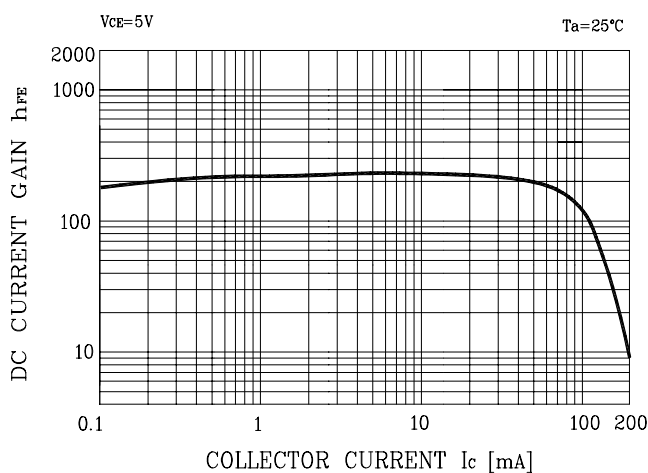


Fig. 2 $V_{CE(SAT)} - I_C$

