

SRC1210K

NPN Silicon Transistor

Descriptions

- Switching application
- Interface circuit and driver circuit application

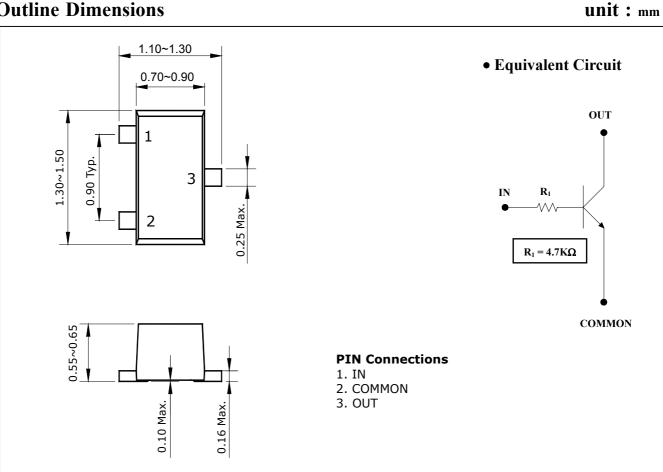
Features

- 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 | | |
|----------|---------|--------------|--|--|
| SRC1210K | RA | SOT-623F | | |

Outline Dimensions



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Absolute Maximum Ratings

(Ta=25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|----------------|-----------|------|
| Output voltage | Vo | 50 | V |
| Input voltage | V _I | 20, -5 | V |
| Output current | I_{O} | 100 | mA |
| Power dissipation | P_{D} | 100 | mW |
| Junction temperature | T ₁ | 150 | °C |
| Storage temperature range | T_{stg} | -55 ~ 150 | °C |

Electrical Characteristics

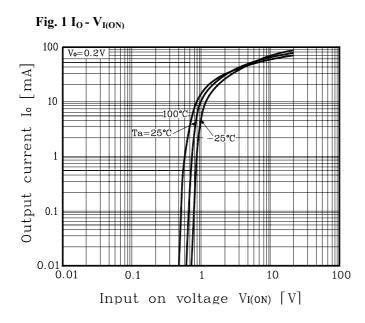
(Ta=25°C)

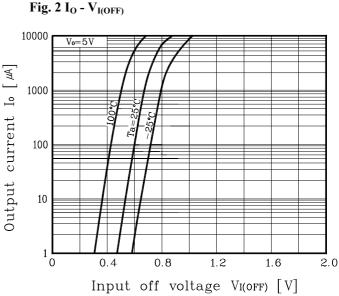
| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------|---------------------|---|------|------|------|------|
| Output cut-off current | I _{O(OFF)} | V _O =50V, V _I =0 | - | - | 500 | nA |
| DC current gain | G_{I} | V _O =5V, I _O =10mA | 120 | - | - | - |
| 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 | - | 0.8 | 1.2 | V |
| Input voltage (OFF) | $V_{I(OFF)}$ | $V_0 = 5V$, $I_0 = 0.1$ mA | 0.3 | 0.55 | - | V |
| Transition frequency | f_T^* | $V_0=10V$, $I_0=5mA$, $f=1MHz$ | - | 200 | - | MHz |
| Input current | $I_{\rm I}$ | $V_I=5V$, $I_O=0$ | - | - | 1.8 | mA |
| Input resistor (Input to base) | R ₁ | - | 3.3 | 4.7 | 6.1 | ΚΩ |

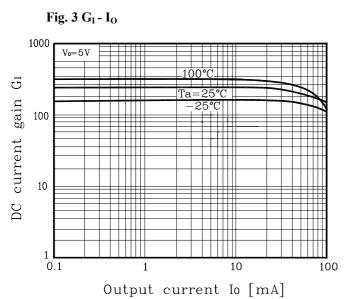
^{* :} Characteristic of transistor only

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Electrical Characteristic Curves







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