

XN06435 (XN6435)

Silicon PNP epitaxial planar type

For high-frequency amplification

■ Features

- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SA1022 × 2

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | -30 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | -20 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | -5 | V |
| Collector current | I_C | -30 | mA |
| Total power dissipation | P_T | 300 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

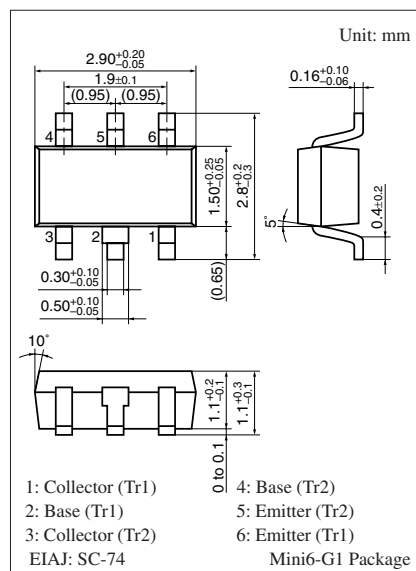
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|-------------------------------------|---|------|------|------|---------------|
| Base-emitter voltage | V_{BE} | $V_{CE} = -10\text{ V}$, $I_C = -1\text{ mA}$ | | -0.7 | | V |
| Collector-base cutoff current (Emitter open) | I_{CBO} | $V_{CB} = -10\text{ V}$, $I_E = 0$ | | | -0.1 | μA |
| Collector-emitter cutoff current (Base open) | I_{CEO} | $V_{CE} = -20\text{ V}$, $I_B = 0$ | | | -100 | μA |
| Emitter-base cutoff current (Collector open) | I_{EBO} | $V_{EB} = -5\text{ V}$, $I_C = 0$ | | | -10 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CB} = -10\text{ V}$, $I_E = 1\text{ mA}$ | 50 | | 220 | — |
| h_{FE} ratio * | $h_{FE(\text{Small}/\text{Large})}$ | $V_{CB} = -10\text{ V}$, $I_E = 1\text{ mA}$ | 0.50 | 0.99 | | — |
| Collector-emitter saturation voltage | $V_{CE(\text{sat})}$ | $I_C = -10\text{ mA}$, $I_B = -1\text{ mA}$ | | -0.1 | | V |
| Transition frequency | f_T | $V_{CB} = -10\text{ V}$, $I_E = 1\text{ mA}$, $f = 200\text{ MHz}$ | 150 | | | MHz |
| Noise figure | NF | $V_{CB} = -10\text{ V}$, $I_E = 1\text{ mA}$, $f = 5\text{ MHz}$ | | 2.8 | | dB |
| Reverse transfer impedance | Z_{rb} | $V_{CB} = -10\text{ V}$, $I_E = 1\text{ mA}$, $f = 2\text{ MHz}$ | | 22 | | Ω |
| Reverse transfer capacitance (Common emitter) | C_{re} | $V_{CE} = -10\text{ V}$, $I_E = 1\text{ mA}$, $f = 10.7\text{ MHz}$ | | 1.2 | | pF |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

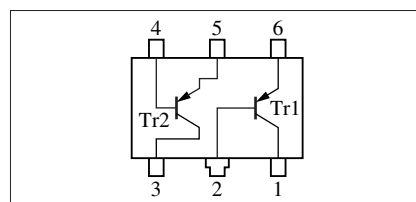
2. *: Ratio between 2 elements

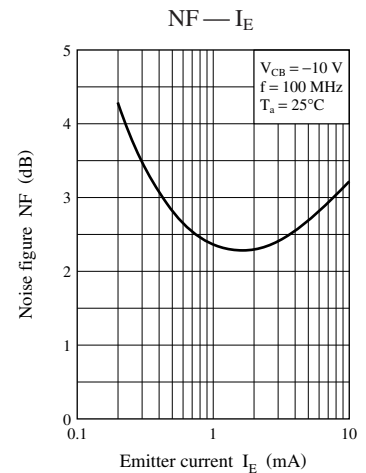
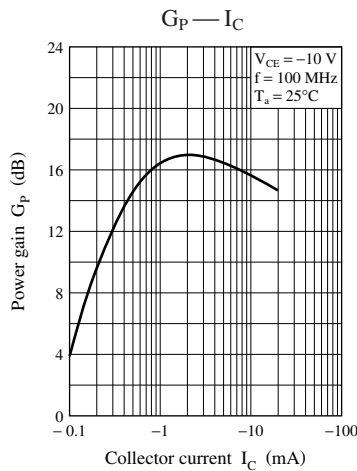
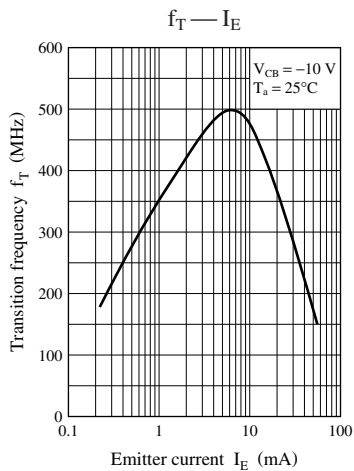
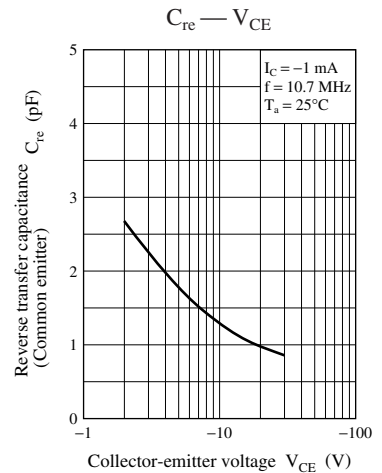
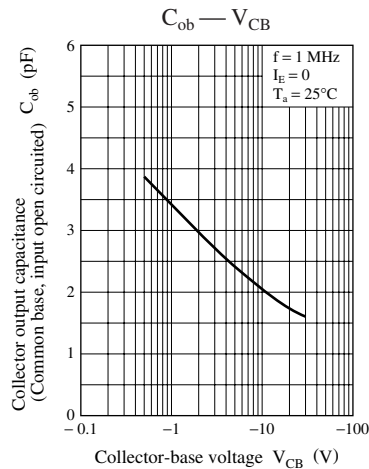
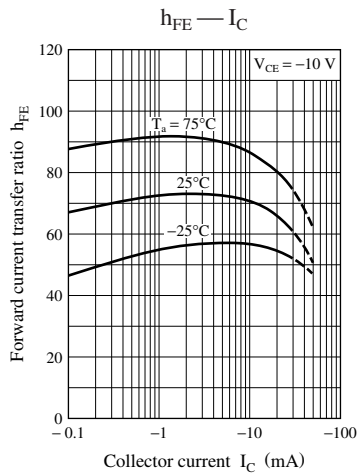
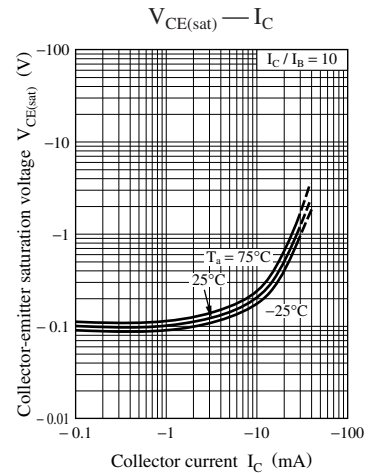
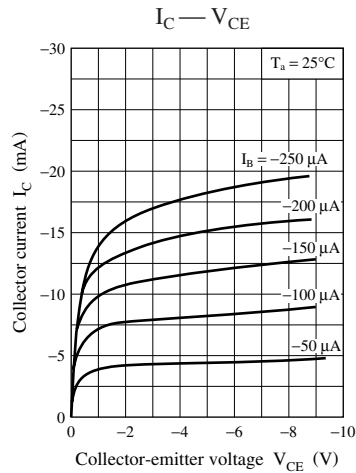
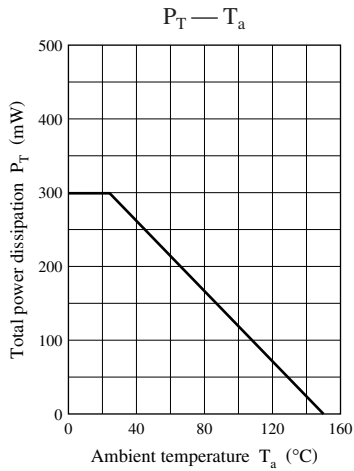
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: 7W

Internal Connection





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