

2SC5472

Silicon NPN epitaxial planer type

For low-voltage low-noise high-frequency oscillation

■ Features

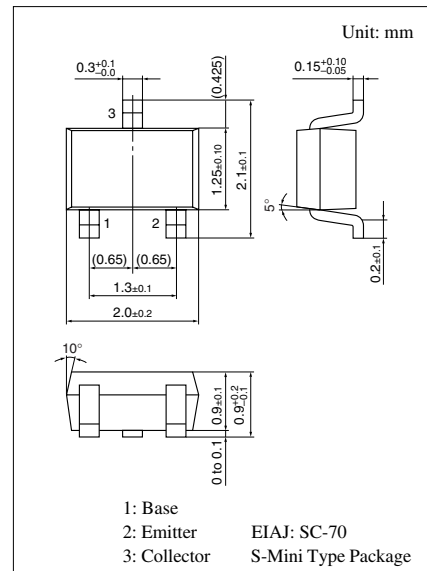
- High transition frequency f_T
- High gain of 8.2 dB and low noise of 1.8 dB at 3 V
- Optimum for RF amplification of a portable telephone and pager
- S-mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

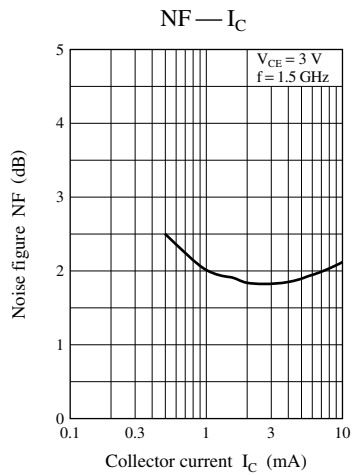
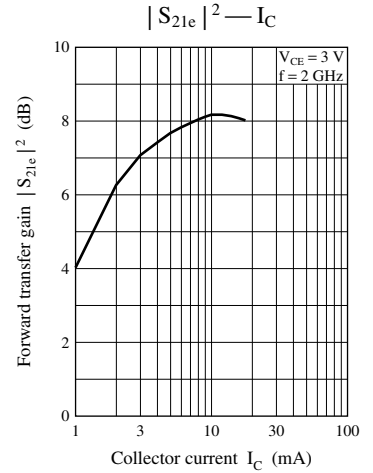
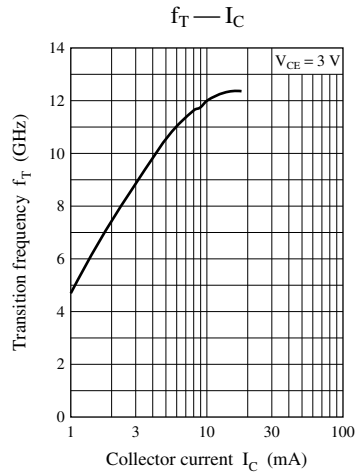
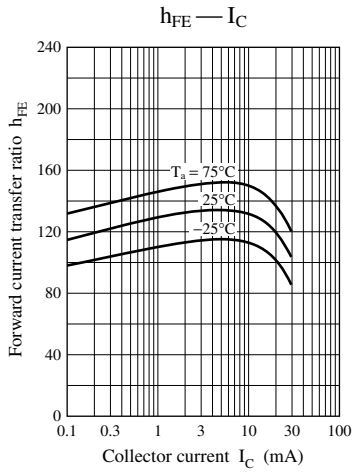
| Parameter | Symbol | Rating | Unit |
|------------------------------|-----------|-------------|------------------|
| Collector to base voltage | V_{CB0} | 9 | V |
| Collector to emitter voltage | V_{CEO} | 6 | V |
| Emitter to base voltage | V_{EBO} | 1 | V |
| Collector current | I_C | 30 | mA |
| Collector power dissipation | P_C | 150 | 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 |
|--------------------------------|---------------|--|-----|------|-----|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = 9\text{ V}, I_E = 0$ | | | 1 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = 1\text{ V}, I_C = 0$ | | | 1 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = 3\text{ V}, I_C = 10\text{ mA}$ | 80 | | 200 | |
| Transition frequency | f_T | $V_{CE} = 3\text{ V}, I_C = 10\text{ mA}, f = 2\text{ GHz}$ | | 12.0 | | GHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 3\text{ V}, I_E = 0, f = 1\text{ MHz}$ | | 0.6 | 0.9 | pF |
| Forward transfer gain | $ S_{21c} ^2$ | $V_{CE} = 3\text{ V}, I_C = 10\text{ mA}, f = 2\text{ GHz}$ | 6.0 | 8.0 | | dB |
| Noise figure | NF | $V_{CE} = 3\text{ V}, I_C = 3\text{ mA}, f = 1.5\text{ GHz}$ | | 1.8 | 3.0 | dB |



Marking Symbol: 3A



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Datasheets for electronics components.