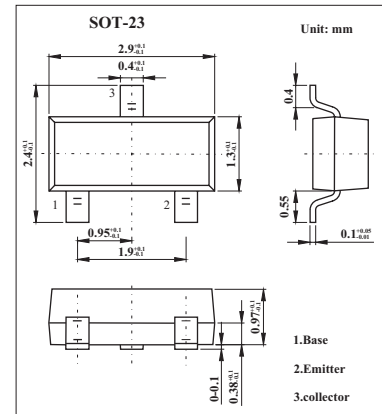


Silicon NPN Epitaxial Planar Type

2SC2295



■ Features

- Optimum for RF amplification of FM/AM radios.
- High transition frequency f_T .
- 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-base voltage | V_{CB0} | 30 | V |
| Collector-emitter voltage | V_{CE0} | 20 | V |
| Emitter-base voltage | V_{EB0} | 5 | V |
| Collector current | I_C | 30 | mA |
| Collector power dissipation | P_C | 200 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------|-----------|---|-----|-----|-----|---------------|
| Collector cutoff current | I_{CBO} | $V_{CB} = 10\text{ V}, I_E = 0$ | | | 0.1 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CB} = 10\text{ V}, I_C = -1\text{ mA}$ | 70 | | 220 | |
| Transition frequency | f_T | $V_{CB} = 10\text{ V}, I_E = -1\text{ mA}, f = 200\text{ MHz}$ | 100 | 250 | | MHz |
| Noise figure | NF | $V_{CB} = 10\text{ V}, I_E = -1\text{ mA}, f = 5\text{ MHz}$ | | 2.8 | 4.0 | dB |
| Reverse transfer impedance | Z_{rb} | $V_{CB} = 10\text{ V}, I_E = -1\text{ mA}, f = 2\text{ MHz}$ | | 22 | 50 | Ω |
| Reverse transfer capacitance | C_{re} | $V_{CB} = 10\text{ V}, I_C = -1\text{ mA}, f = 10.7\text{ MHz}$ | | 0.9 | 1.5 | pF |

■ h_{FE} Classification

| Marking | VB | VC |
|----------|--------|---------|
| h_{FE} | 70~140 | 110~220 |