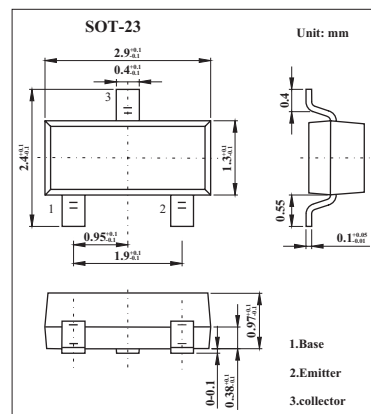


Silicon NPN Epitaxial

2SC2619

■ Features

- High frequency amplifier.

■ 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} | 30 | V |
| Emitter-base voltage | V_{EB0} | 5 | V |
| Collector current | I_C | 100 | mA |
| Collector 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 $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--------------------------------------|---------------|-----------------------------------------------------------------------------------|-----|-----|------|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = 10\mu\text{A}$, $I_E = 0$ | 30 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = 1\text{mA}$, $R_{BE} = \infty$ | 30 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = 10\mu\text{A}$, $I_C = 0$ | 5 | | | V |
| Collector cutoff current | I_{CBO} | $V_{CB} = 20\text{V}$, $I_E = 0$ | | | 0.5 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = 2\text{V}$, $I_C = 0$ | | | 0.5 | μA |
| DC current gain | h_{FE} | $V_{CE} = 12\text{V}$, $I_C = 2\text{mA}$ | 60 | | 200 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 10\text{mA}$, $I_B = 1\text{mA}$ | | | 1.1 | V |
| Base-emitter voltage | V_{BE} | $V_{CE} = 12\text{V}$, $I_C = 2\text{mA}$ | | | 0.75 | V |
| Gain bandwidth product | f_T | $V_{CE} = 12\text{V}$, $I_C = 2\text{mA}$ | | 230 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$ | | | 3.5 | pF |
| Noise figure | NF | $V_{CE} = 6\text{V}$, $I_C = 2\text{mA}$, $f = 1\text{MHz}$, $R_g = 500\Omega$ | | 5 | | dB |

■ h_{FE} Classification

| Marking | FB | FC |
|----------|--------|---------|
| h_{FE} | 60~120 | 100~200 |