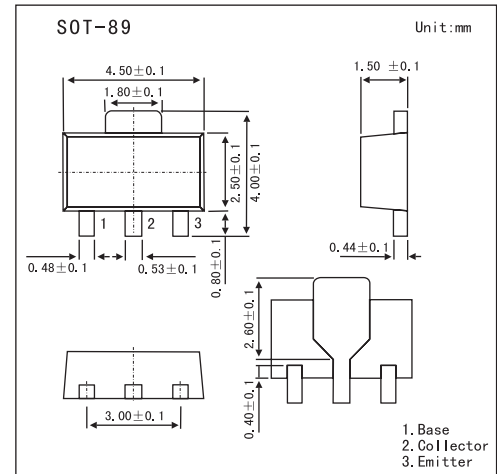


Silicon NPN Epitaxial Planar Type

2SC5026

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- High collector-emitter voltage (Base open) V_{CEO}
- Mini Power 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_{CBO} | 80 | V |
| Collector-emitter voltage | V_{CEO} | 80 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 1 | A |
| Peak collector current | I_{CP} | 1.5 | A |
| Collector power dissipation | P_C | 1 | W |
| 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-base voltage | V_{CBO} | $I_C = 10 \mu\text{A}$, $I_E = 0$ | 80 | | | V |
| Collector-emitter voltage | V_{CEO} | $I_C = 1 \text{ mA}$, $I_B = 0$ | 80 | | | V |
| Emitter-base voltage | V_{EBO} | $I_E = 10 \mu\text{A}$, $I_C = 0$ | 5 | | | V |
| Collector-base cutoff current | I_{CBO} | $V_{CB} = 40 \text{ V}$, $I_B = 0$ | | | 0.1 | μA |
| Forward current transfer ratio | h_{FE} | $V_{CE} = 2 \text{ V}$, $I_C = 100 \text{ mA}$ | 120 | | 340 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$ | | 0.15 | 0.3 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$ | | 0.85 | 1.2 | V |
| Transition frequency | f_T | $V_{CB} = 10 \text{ V}$, $I_E = -50 \text{ mA}$, $f = 200 \text{ MHz}$ | | 120 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$ | | 10 | 20 | pF |

■ h_{FE} Classification

| Marking | 2A | |
|----------|---------|---------|
| | R | S |
| h_{FE} | 120~240 | 170~340 |