

SMD Type

Transistors

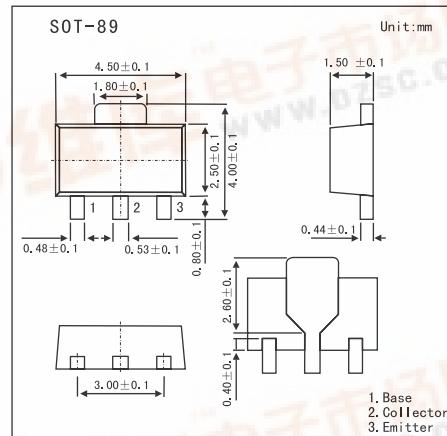
Silicon NPN Epitaxial Planar Type

2SC4543



■ Features

- High transition frequency f_T
- Small collector output capacitance cob
- Wide current range.



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

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-------------|-------------|------------------|
| Collector-base voltage | V_{CBO} | 110 | V |
| Collector-emitter voltage | V_{CER}^* | 100 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 3.5 | V |
| Peak collector current | I_{CP} | 300 | mA |
| Collector current | I_C | 150 | mA |
| Collector power dissipation | P_C | 1.0 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* $R_{EB}=1.2\text{K}\Omega$

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

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|-----|-----|---------------|
| Collector cutoff current | I_{CEO} | $V_{CE} = 35\text{ V}$, $I_B = 0$ | | | 10 | μA |
| Collector-base voltage | V_{CBO} | $I_C = 100\text{ }\mu\text{A}$, $I_E = 0$ | 110 | | | V |
| Collector-emitter voltage | V_{CER} | $I_C = 500\text{ }\mu\text{A}$, $R_{BE} = 470\Omega$ | 100 | | | V |
| Collector-emitter voltage | V_{CEO} | $I_C = 1\text{ mA}$, $I_B = 0$ | 50 | | | V |
| Emitter-base voltage | V_{EBO} | $I_E = 100\text{ }\mu\text{A}$, $I_C = 0$ | 3.5 | | | V |
| Forward current transfer ratio | h_{FE} | $V_{CE} = 5\text{ V}$, $I_C = 100\text{ mA}$ | 20 | | | ? |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 150\text{ mA}$, $I_B = 15\text{ mA}$ | | | 0.5 | V |
| Transition frequency | f_{T1} | $V_{CB} = 10\text{ V}$, $I_E = -10\text{ mA}$, $f = 200\text{ MHz}$ | | 300 | | MHz |
| | f_{T2} | $V_{CB} = 10\text{ V}$, $I_E = -110\text{ mA}$, $f = 200\text{ MHz}$ | | 350 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 30\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$ | | 3 | | pF |

* $R_{EB}=1.2\text{K}\Omega$

■ Marking

| | |
|---------|----|
| Marking | 1F |
|---------|----|