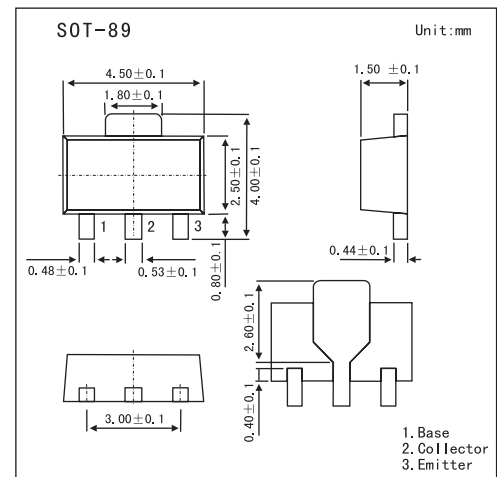


NPN Epitaxial Planar Silicon Transistors

2SC4080

■ Features

- High Ft
- High breakdown voltage
- Small reverse transfer capacitance excellent high-frequency characteristic
- Adoption of FBET process



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---------------------------|--------|------------|------|
| collector-base voltage | VCBO | 200 | V |
| collector-emitter voltage | VCEO | 200 | V |
| emitter-base voltage | VEBO | 4 | V |
| collector current | IC | 100 | mA |
| Collector Current (pulse) | ICP | 200 | mA |
| Collector Dissipation | PC | 500 | mA |
| | | 1.3 | W |
| Junction Temperature | TJ | 150 | °C |
| storage Temperature | Tstg | -55 to 150 | °C |

*Mounted on ceramic board (250mm²X0.8mm)

2SC4080■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|---|---------------|-----------------------------------|-----|-----|-----|---------------|
| collector cutoff Current | I_{CBO} | $V_{CB}=150V, I_E=0$ | | | 0.1 | μA |
| Emitter cutoff current | I_{EBO} | $V_{EB}=2V, I_C=0$ | | | 1.0 | μA |
| DC Current Gain | h_{FE} | $V_{CE}=10V, I_C=10\text{mA}$ | 40 | | 320 | |
| | | $V_{CE}=10V, I_C=100\text{mA}$ | 20 | | | |
| Gain-Bandwidth product | f_T | $V_{CE}=30V, I_C=30\text{mA}$ | | 400 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=30V, f=1\text{MHz}$ | | 1.8 | | pF |
| Reverse Transfer | C_{re} | $V_{CB}=30V, f=1\text{MHz}$ | | 1.4 | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=20\text{mA}, I_B=2\text{mA}$ | | | 1 | V |
| Base to Emitter Stauration Voltage | $V_{BE(sat)}$ | $I_C=20\text{mA}, I_B=2\text{mA}$ | | | 1 | V |
| Collector to Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=10\mu\text{A}, I_E=0$ | 200 | | | V |
| Collector to Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=1\text{mA}, I_B=0$ | 200 | | | V |
| Emitter to Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}, I_C=0$ | 4 | | | V |

■ hFE Classification

| Marking | CI | | | |
|---------|----------|-----------|------------|------------|
| | C | D | E | F |
| Type | 40 to 80 | 60 to 120 | 100 to 200 | 160 to 320 |