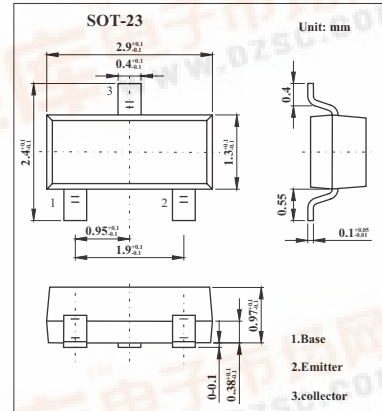


SMD Type Transistors

NPN Silicon Epitaxial Transistor
2SC3360

■ Features

- High DC current gain. $h_{FE}=90$ to 450
- High voltage $V_{CE0}=200V$



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

| Parameter | Symbol | Rating | Unit |
|---------------------------|-----------|-------------|-------------|
| Collector-base voltage | V_{CB0} | 200 | V |
| Collector-emitter voltage | V_{CE0} | 200 | V |
| Emitter-base voltage | V_{EB0} | 5 | V |
| Collector current | I_C | 100 | mA |
| Total power dissipation | P_T | 200 | mW |
| Junction temperature | T_j | 150 | $^{\circ}C$ |
| Storage temperature | T_{stg} | -55 to +150 | $^{\circ}C$ |

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

| Parameter | Symbol | Testconditons | Min | Typ | Max | Unit |
|--|---------------|---------------------------------------|-----|------|-----|---------|
| Collector cutoff current | I_{CBO} | $V_{CB} = 200V, I_E=0$ | | | 100 | nA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = 5V, I_C=0$ | | | 100 | nA |
| DC current gain * | h_{FE} | $V_{CE} = 10V, I_C = 10mA$ | 90 | 200 | 450 | |
| | | $V_{CE} = 10V, I_C = 50mA$ | 50 | 200 | | |
| Base-emitter voltage * | V_{BE} | $V_{CE} = 10V, I_C = 10mA$ | 0.6 | 0.64 | 0.7 | V |
| Collector-emitter saturation voltage * | $V_{CE(sat)}$ | $I_C = 50mA, I_B = 5mA$ | | 0.1 | 0.3 | V |
| Base saturation voltage * | $V_{BE(sat)}$ | $I_C = 50mA, I_B = 5mA$ | | 0.8 | 1.2 | V |
| Gain bandwidth product | f_T | $V_{CE} = 10V, I_E = -10mA$ | | 160 | | MHz |
| Output capacitance | C_{ob} | $V_{CB} = 30V, I_E = 0, f = 1.0MHz$ | | 2.8 | | pF |
| Turn-on time | t_{on} | $I_C = 10mA, I_{B1} = -I_{B2} = 1mA,$ | | 0.15 | | μs |
| Storage time | t_{stg} | $V_{CC} = 10V$ | | 1.3 | | μs |
| Fall time | t_f | $V_{BE(off)} = -2.5V$ | | 0.3 | | μs |

* Pulse test: $t_p \leq 350 \mu s; d \leq 0.02.$

■ hFE Classification

| Marking | N15 | N16 | N17 |
|----------|--------|---------|---------|
| h_{FE} | 90~180 | 135~270 | 200~450 |

