

TOSHIBA Transistor Silicon NPN Triple Diffused Type (PCT process)

2SC4497

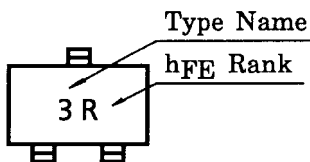
High Voltage Control Applications

- High voltage: $V_{CBO} = 300\text{ V}$, $V_{CEO} = 300\text{ V}$
- Low saturation voltage: $V_{CE(sat)} = 0.5\text{ V (max)}$
- Small collector output capacitance: $C_{ob} = 3\text{ pF (typ.)}$
- Complementary to 2SA1721

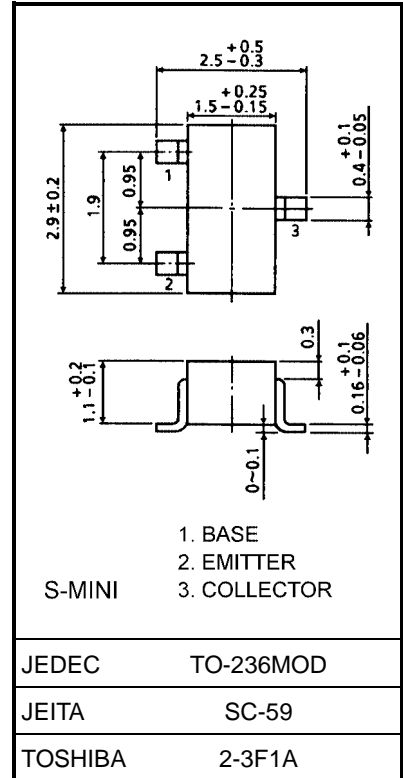
Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Characteristics | Symbol | Rating | Unit |
|-----------------------------|-----------|---------|------------------|
| Collector-base voltage | V_{CBO} | 300 | V |
| Collector-emitter voltage | V_{CEO} | 300 | V |
| Emitter-base voltage | V_{EBO} | 6 | V |
| Collector current | I_C | 100 | mA |
| Base current | I_B | 20 | mA |
| Collector power dissipation | P_C | 200 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55-150 | $^\circ\text{C}$ |

Marking



Unit: mm

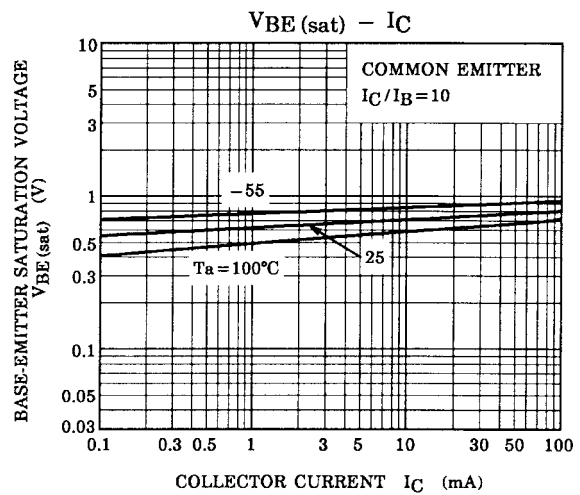
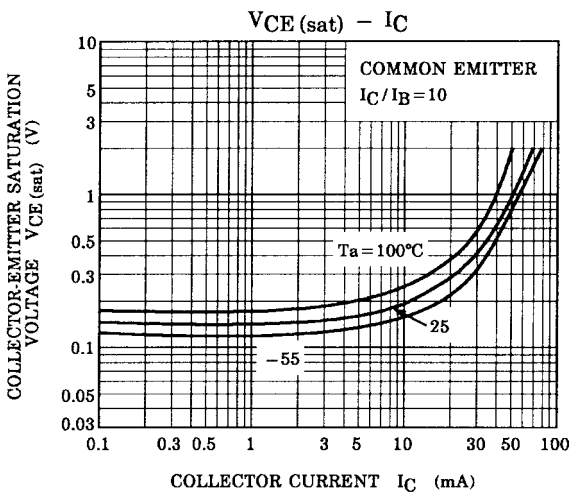
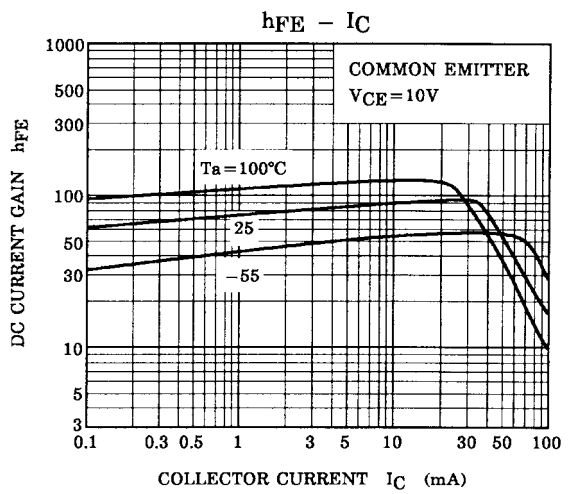
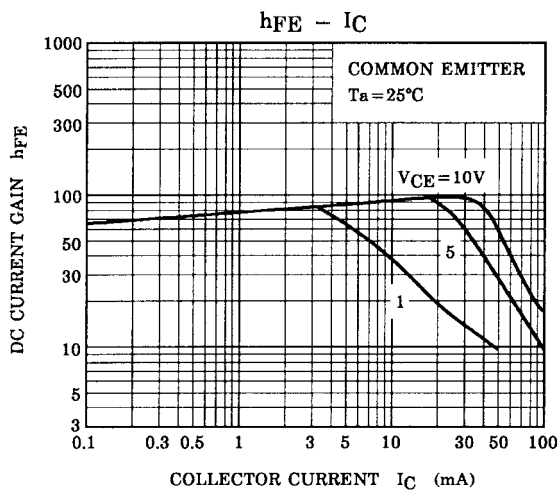
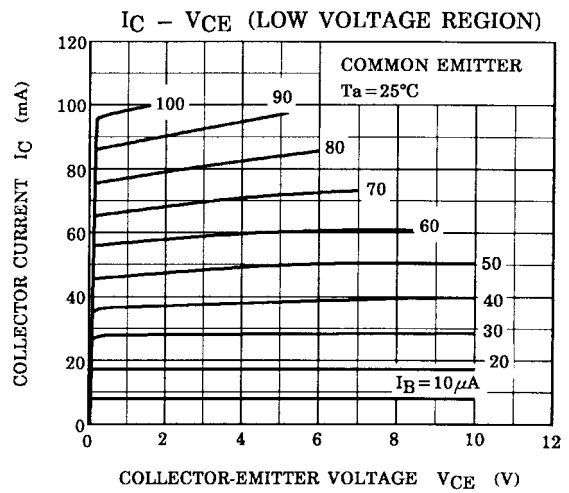
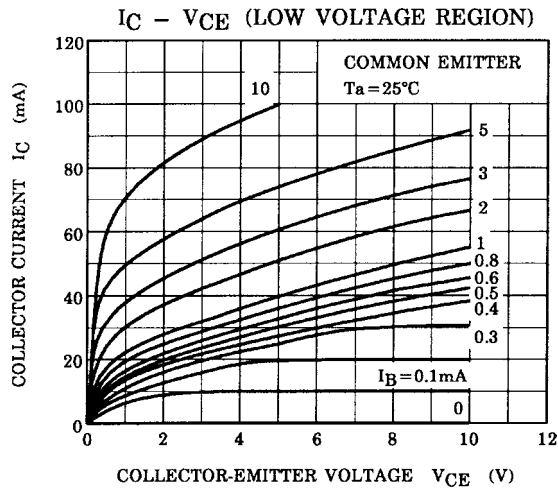


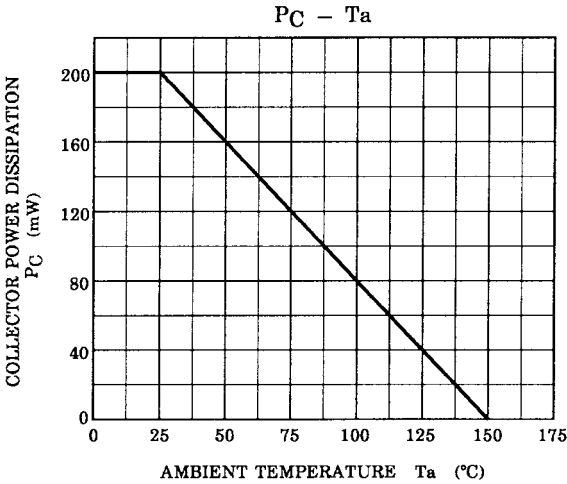
Weight: 0.012 g (typ.)

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|-----------------------|---|-----|------|-----|---------------|
| Collector cut-off current | I_{CBO} | $V_{CB} = 300\text{ V}, I_E = 0$ | — | — | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 6\text{ V}, I_C = 0$ | — | — | 0.1 | μA |
| Collector-base breakdown voltage | $V_{(BR) CBO}$ | $I_C = 0.1\text{ mA}, I_E = 0$ | 300 | — | — | V |
| Collector-emitter breakdown voltage | $V_{(BR) CEO}$ | $I_C = 1\text{ mA}, I_B = 0$ | 300 | — | — | V |
| DC current gain | $h_{FE(1)}$ (Note) | $V_{CE} = 10\text{ V}, I_C = 20\text{ mA}$ | 30 | — | 150 | |
| | $h_{FE(2)}$ | $V_{CE} = 10\text{ V}, I_C = 1\text{ mA}$ | 20 | — | — | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 20\text{ mA}, I_B = 2\text{ mA}$ | — | — | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = 20\text{ mA}, I_B = 2\text{ mA}$ | — | — | 1.2 | V |
| Transition frequency | f_T | $V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$ | — | 70 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 20\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 3 | 4 | pF |

Note: $h_{FE(1)}$ classification R: 30~90, O: 50~150





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