

TOSHIBA Transistor Silicon NPN Triple Diffused Type

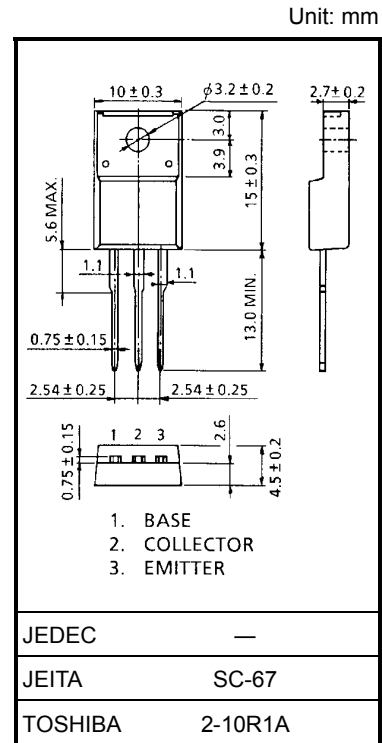
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Dynamic Focus Applications
 High Voltage Switching Applications
 High Voltage Amplifier Applications

- High voltage: $V_{CEO} = 800\text{ V}$

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

| Characteristics | Symbol | Rating | Unit |
|-----------------------------|-----------|--------------------------|------------------|
| Collector-base voltage | V_{CBO} | 800 | V |
| Collector-emitter voltage | V_{CEO} | 800 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 50 | mA |
| Base current | I_B | 25 | mA |
| Collector power dissipation | P_C | $T_a = 25^\circ\text{C}$ | 2.0 |
| | | $T_c = 25^\circ\text{C}$ | 10 |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55 to 150 | $^\circ\text{C}$ |

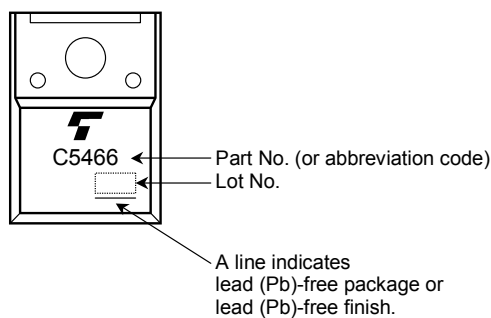


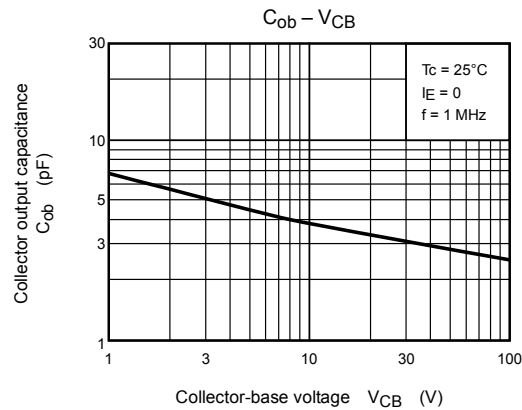
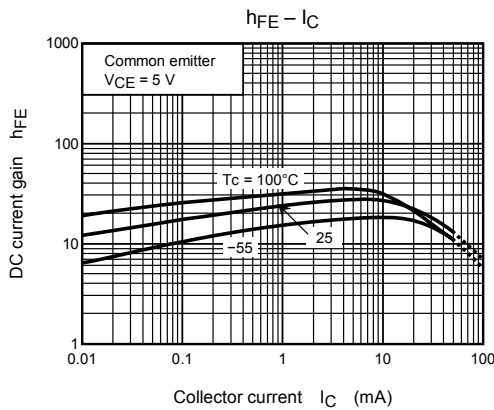
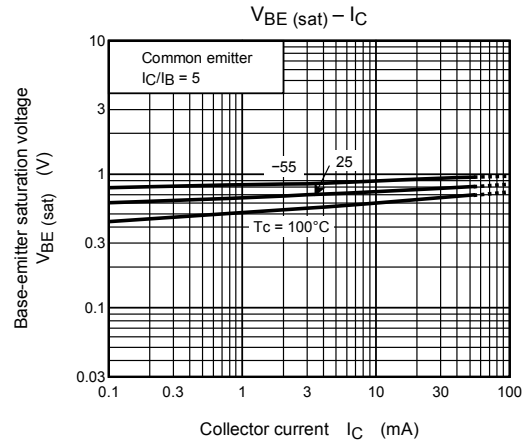
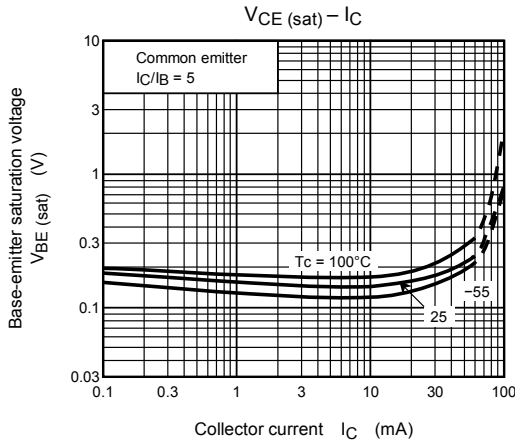
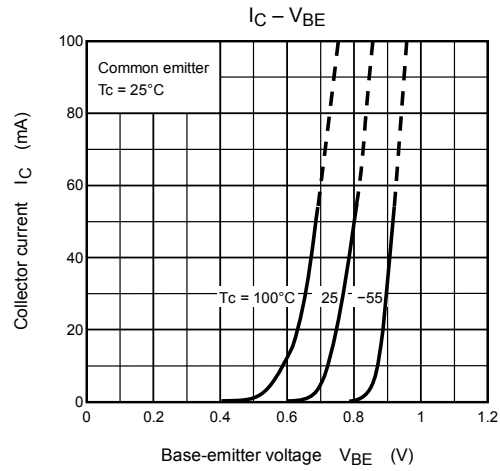
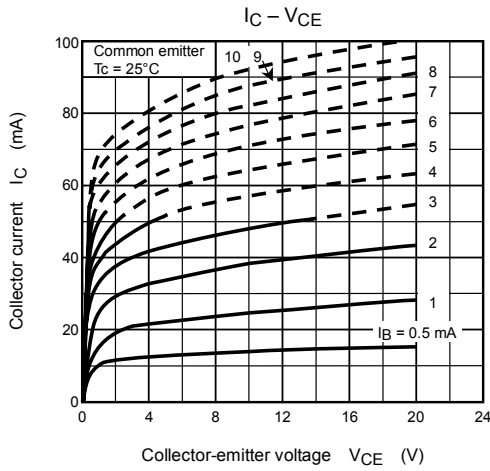
Weight: 1.7 g (typ.)

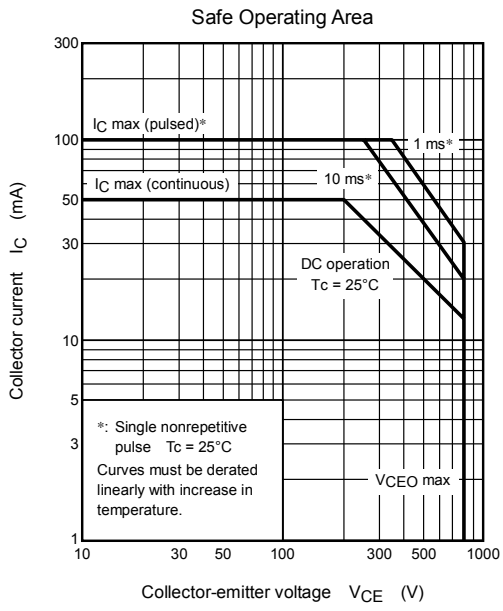
Electrical Characteristics ($T_c = 25^\circ\text{C}$)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|---------------|---|-----|------|-----|---------------|
| Collector cut-off current | I_{CBO} | $V_{CB} = 640\text{ V}, I_E = 0$ | — | — | 1.0 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 5\text{ V}, I_C = 0$ | — | — | 10 | μA |
| DC current gain | h_{FE} | $V_{CE} = 5\text{ V}, I_C = 7\text{ mA}$ | 15 | — | — | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 20\text{ mA}, I_B = 4\text{ mA}$ | — | — | 1.0 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = 20\text{ mA}, I_B = 4\text{ mA}$ | — | — | 1.5 | V |
| Transition frequency | f_T | $V_{CE} = 10\text{ V}, I_C = 3\text{ mA}$ | — | 5.5 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 100\text{ V}, f = 1\text{ MHz}$ | — | 2.2 | — | pF |

Marking







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