

TOSHIBA Transistor Silicon PNP Triple Diffused Type (PCT process)

2SA1200

High Voltage Switching Applications

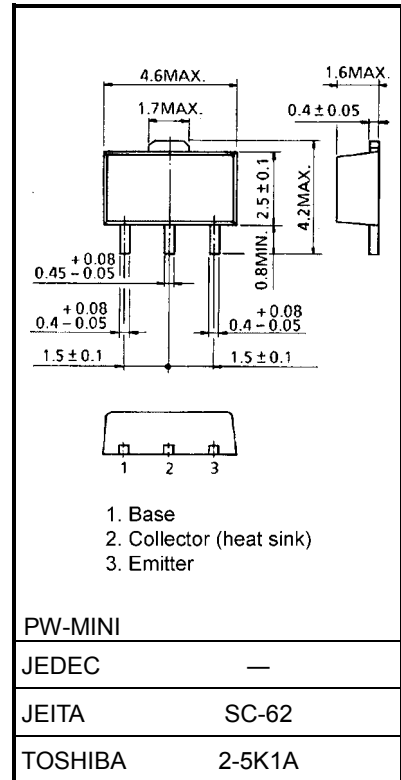
- High voltage: $V_{CE0} = -150\text{ V}$
- High transition frequency: $f_T = 120\text{ MHz (typ.)}$
- Small flat package
- $P_C = 1\text{ to }2\text{ W}$ (mounted on ceramic substrate)
- Complementary to 2SC2880

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

| Characteristics | Symbol | Rating | Unit |
|-----------------------------|-------------------|------------|------------------|
| Collector-base voltage | V_{CBO} | -150 | V |
| Collector-emitter voltage | V_{CEO} | -150 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -50 | mA |
| Base current | I_B | -10 | mA |
| Collector power dissipation | P_C | 500 | mW |
| | P_C (Note 1) | 800 | |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55 to 150 | $^\circ\text{C}$ |

Note 1: 2SA1200 mounted on ceramic substrate ($250\text{ mm}^2 \times 0.8\text{ t}$)

Unit: mm



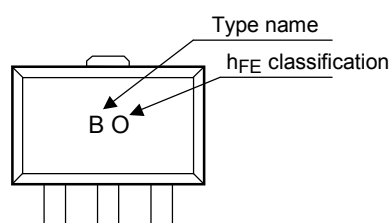
Weight: 0.05 g (typ.)

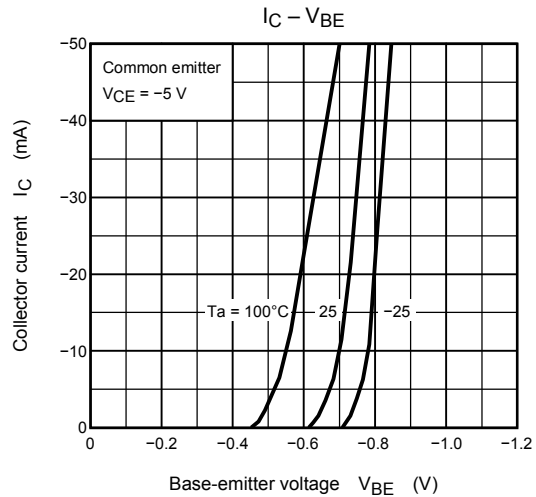
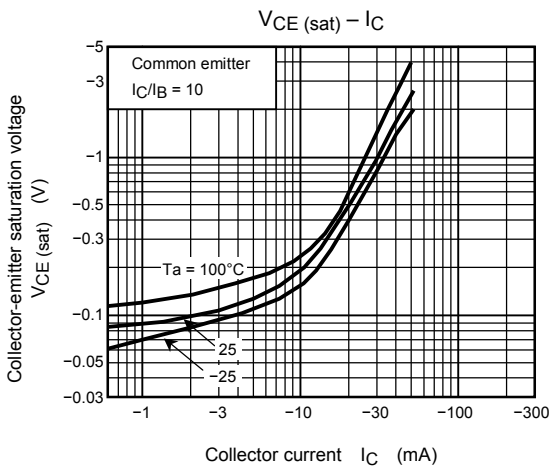
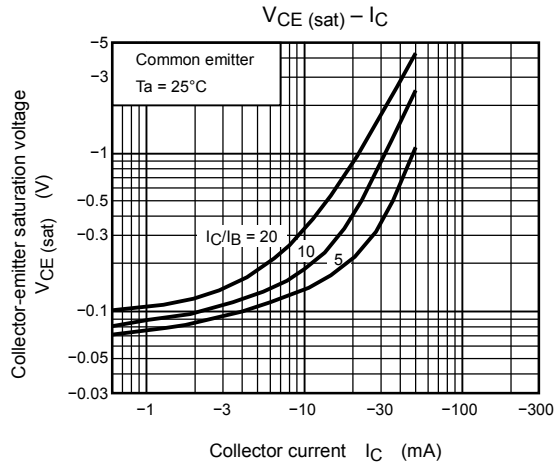
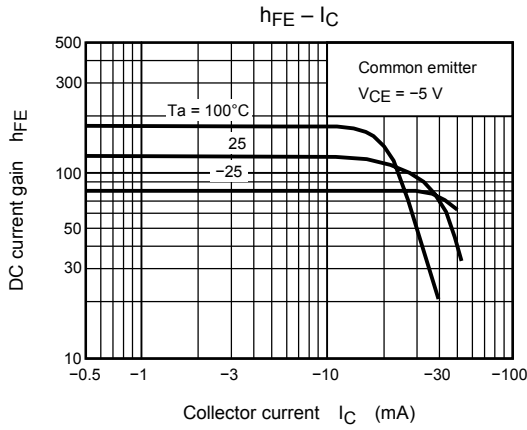
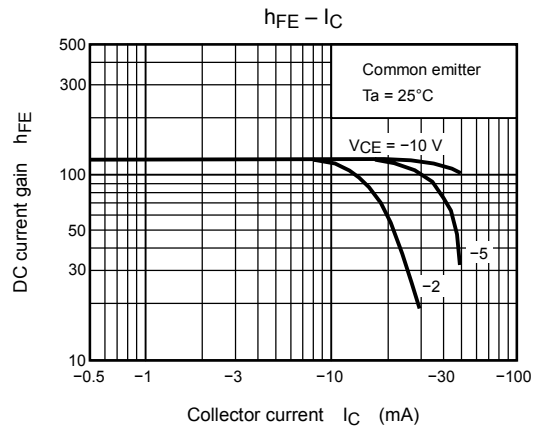
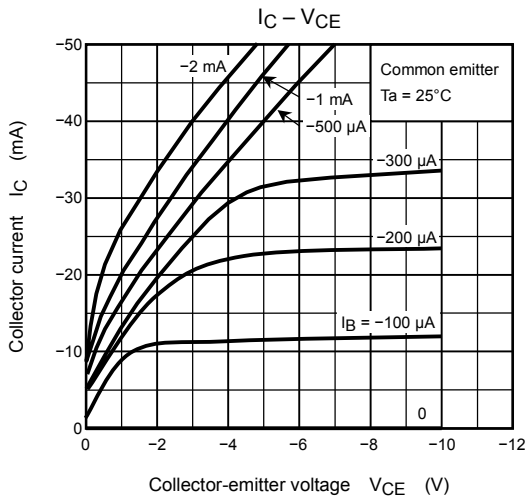
Electrical Characteristics (Ta = 25°C)

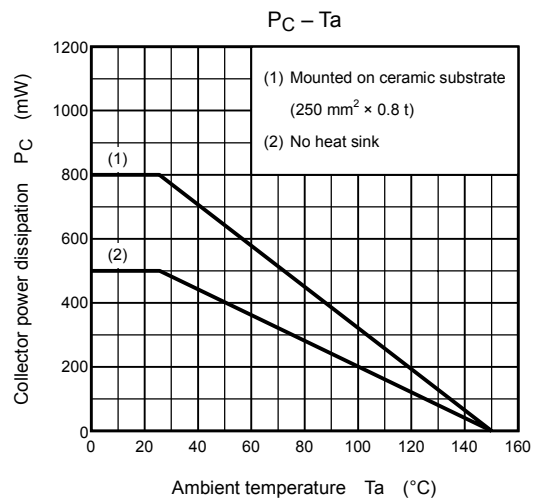
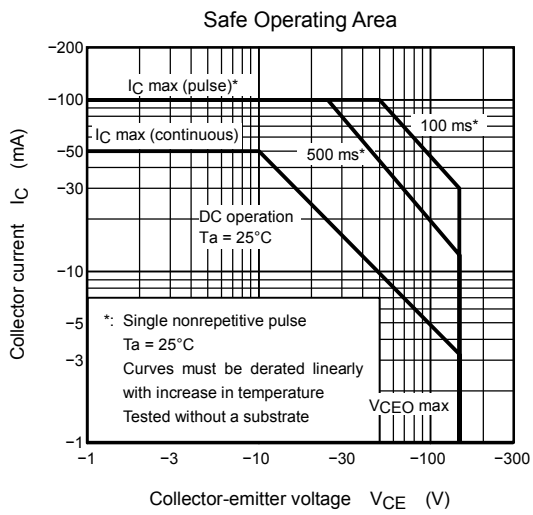
| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|----------------------|--|-----|------|------|---------------|
| Collector cut-off current | I_{CBO} | $V_{CB} = -150\text{ V}, I_E = 0$ | — | — | -0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = -5\text{ V}, I_C = 0$ | — | — | -0.1 | μA |
| DC current gain | h_{FE} (Note 2) | $V_{CE} = -5\text{ V}, I_C = -10\text{ mA}$ | 70 | — | 240 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -10\text{ mA}, I_B = -1\text{ mA}$ | — | — | -0.8 | V |
| Base-emitter voltage | V_{BE} | $V_{CE} = -5\text{ V}, I_C = -30\text{ mA}$ | — | — | -0.9 | V |
| Transition frequency | f_T | $V_{CE} = -30\text{ V}, I_C = -10\text{ mA}$ | — | 120 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 4.0 | 5.0 | pF |

Note 2: h_{FE} classification O: 70 to 140, Y: 120 to 240

Marking







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