

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

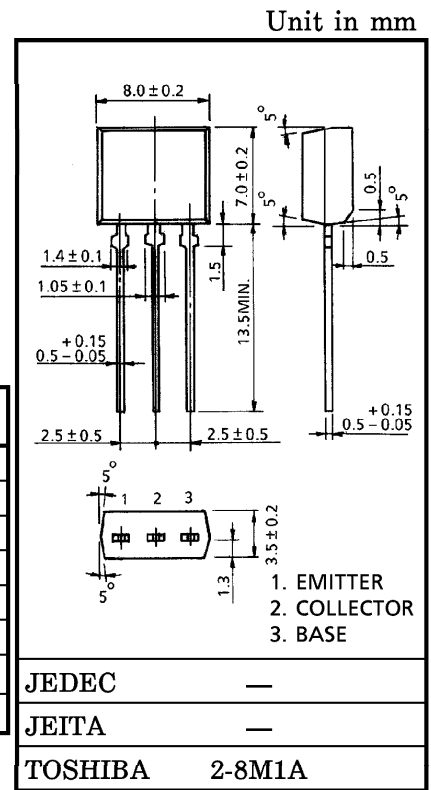
2SA1892

POWER AMPLIFIER APPLICATIONS
POWER SWITCHING APPLICATIONS

- Low Collector Saturation Voltage : $V_{CE(sat)} = -0.5V$ (Max.)
- High Power Dissipation : $P_C = 1.3W$
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SC5029

MAXIMUM RATINGS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | -50 | V |
| Collector-Emitter Voltage | V_{CEO} | -50 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -3 | A |
| Base Current | I_B | -0.2 | A |
| Collector Power Dissipation | P_C | 1.3 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |

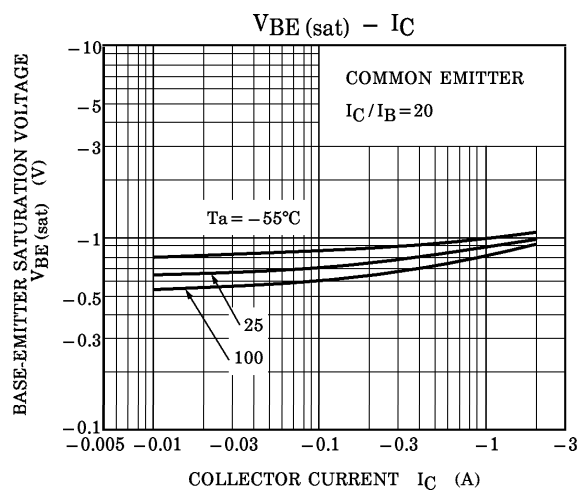
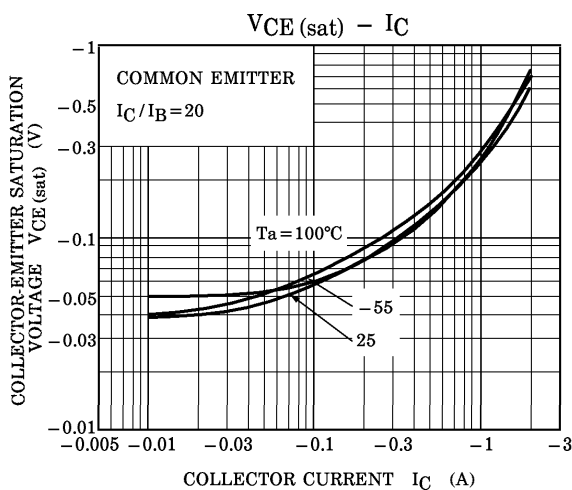
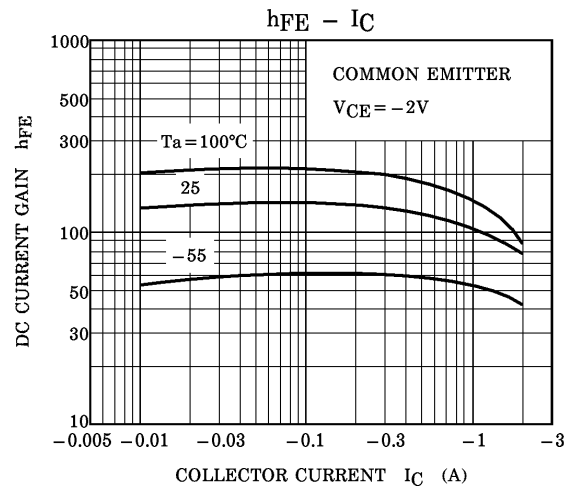
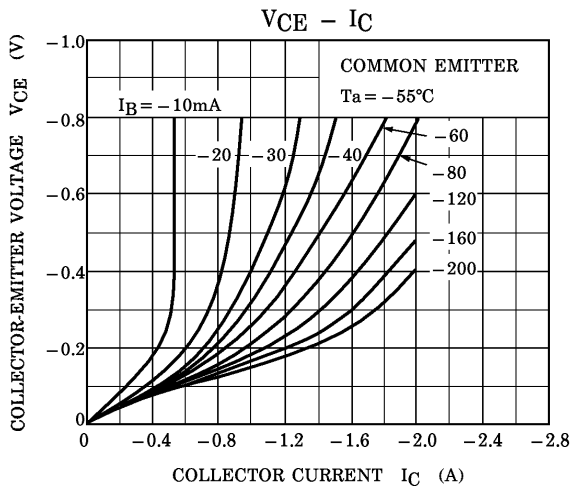
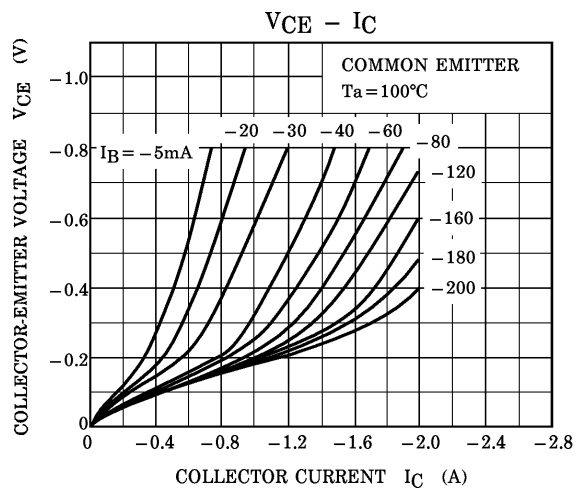
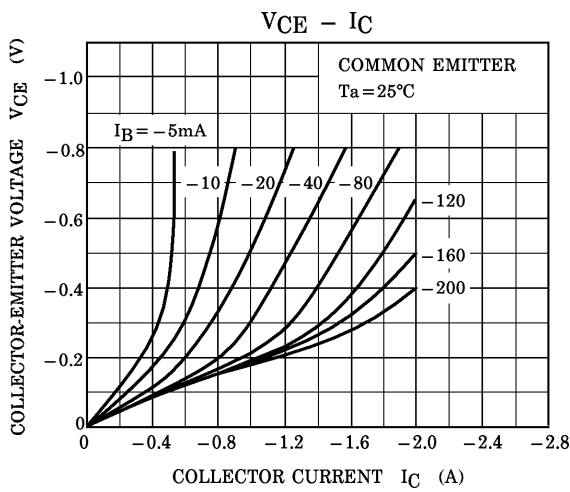


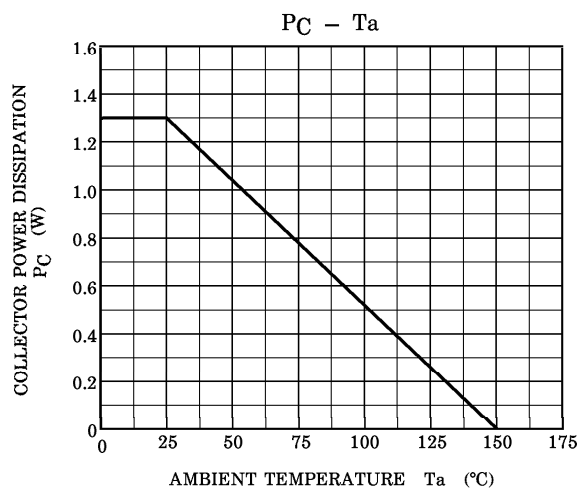
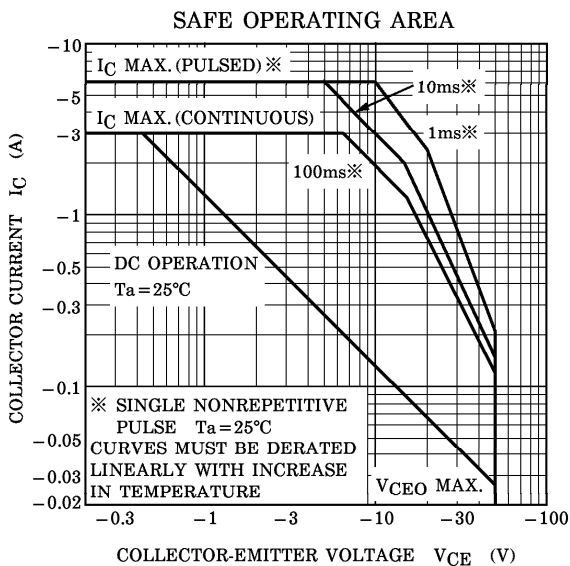
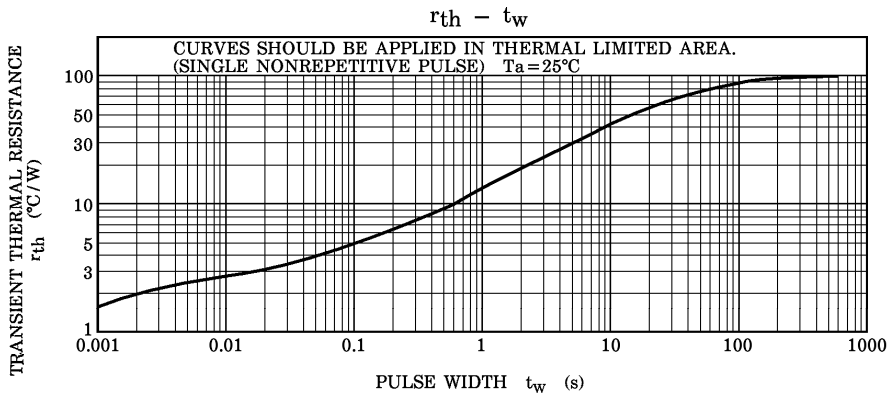
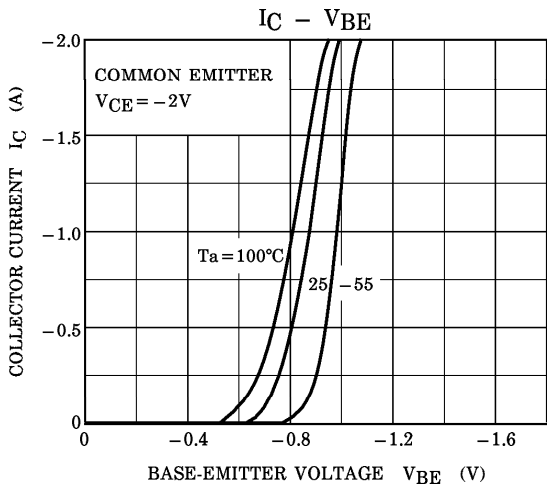
Weight : 0.55g (Typ.)

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-------------------------------------|-------------------|--------------------|------------------------------------|--|------|------|---------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB} = -50V, I_E = 0$ | — | — | -1.0 | μA |
| Emitter Cut-off Current | | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | — | — | -1.0 | μA |
| Collector-Emitter Breakdown Voltage | | $V_{(BR)CEO}$ | $I_C = -10mA, I_B = 0$ | -50 | — | — | V |
| DC Current Gain | | $h_{FE(1)}$ (Note) | $V_{CE} = -2V, I_C = -0.5A$ | 70 | — | 240 | |
| | | $h_{FE(2)}$ | $V_{CE} = -2V, I_C = -1.5A$ | 40 | — | — | |
| Saturation Voltage | Collector-Emitter | $V_{CE(sat)}$ | $I_C = -1A, I_B = -0.05A$ | — | — | -0.5 | V |
| | Base-Emitter | $V_{BE(sat)}$ | $I_C = -1A, I_B = -0.05A$ | — | — | -1.2 | |
| Transition Frequency | | f_T | $V_{CE} = -2V, I_C = -0.5A$ | — | 100 | — | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | — | 40 | — | pF |
| Switching Time | Turn-on Time | t_{on} | | — | 0.1 | — | μs |
| | Storage Time | t_{stg} | | — | 1.0 | — | |
| | Fall Time | t_f | | $-I_{B1} = I_{B2} = 0.05A,$ $DUTY CYCLE \leq 1\%$ | — | 0.1 | |

(Note) : $h_{FE(1)}$ Classification O : 70~140, Y : 120~240





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