

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1203

AUDIO FREQUENCY AMPLIFIER APPLICATIONS

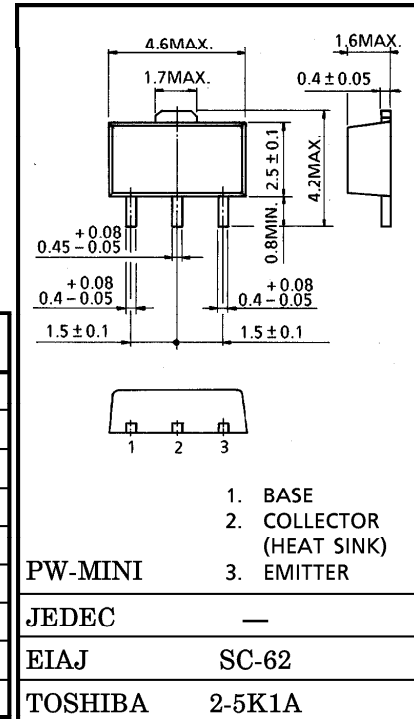
Unit in mm

- Suitable for Output Stage of 3 Watts Amplifier
- $P_C = 1 \sim 2W$ (Mounted on Ceramic Substrate)
- Small Flat Package
- Complementary to 2SC2883

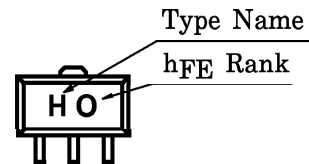
MAXIMUM RATINGS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | -30 | V |
| Collector-Emitter Voltage | V_{CEO} | -30 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -1.5 | A |
| Base Current | I_B | -0.3 | A |
| Collector Power Dissipation | P_C | 500 | mW |
| Collector Power Dissipation | P_C^* | 1000 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~150 | $^\circ C$ |

P_C^* : Mounted on ceramic substrate ($250mm^2 \times 0.8t$)



Weight : 0.05g
Marking



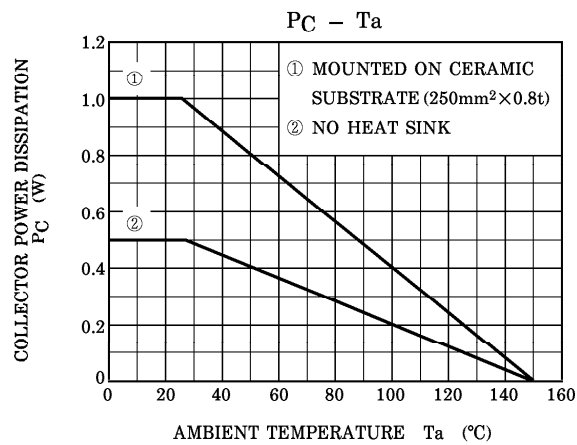
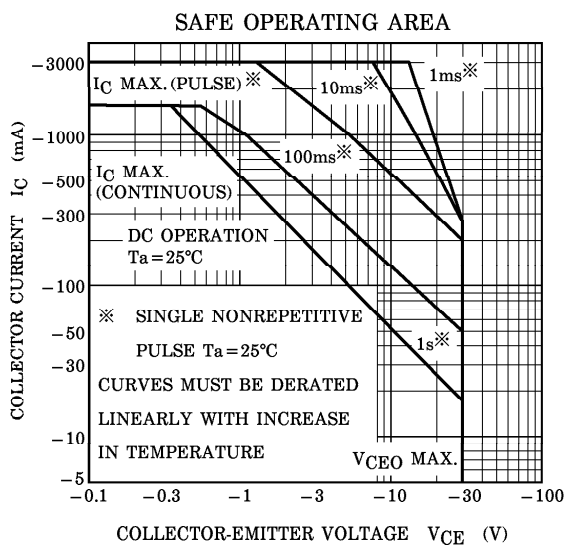
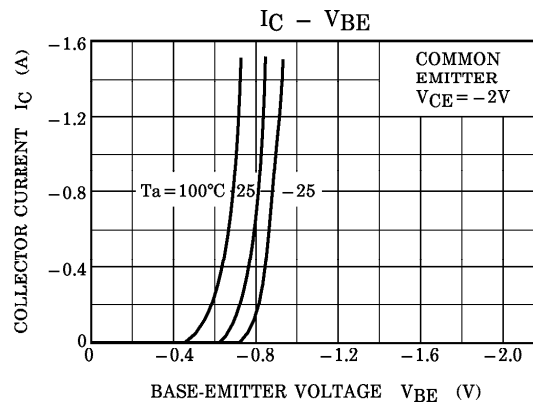
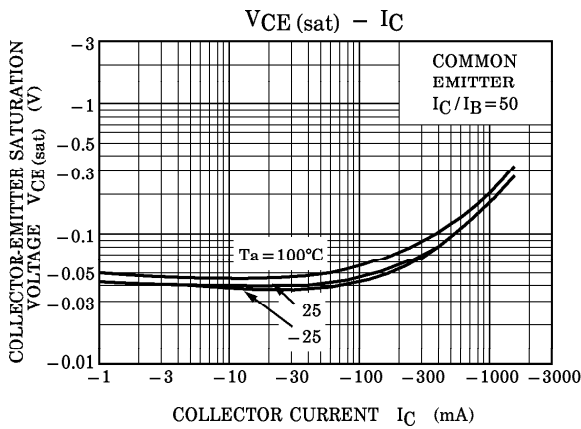
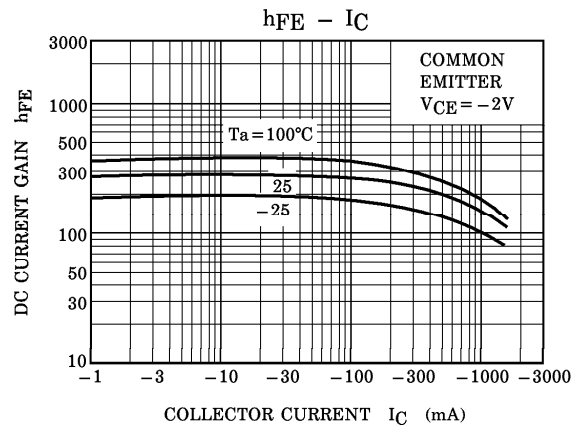
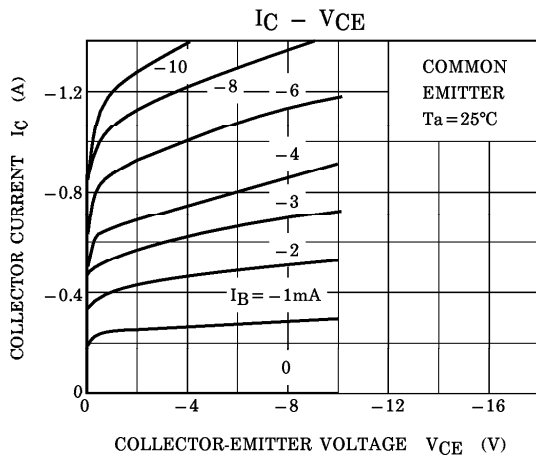
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-----------------|------------------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB} = -30V, I_E = 0$ | — | — | -0.1 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB} = -5V, I_C = 0$ | — | — | -0.1 | μA |
| Collector-Emitter Breakdown Voltage | $V_{(BR) CEO}$ | $I_C = -10mA, I_B = 0$ | -30 | — | — | V |
| Emitter-Base Breakdown Voltage | $V_{(BR) EBO}$ | $I_E = -1mA, I_C = 0$ | -5 | — | — | V |
| DC Current Gain | $h_{FE} (Note)$ | $V_{CE} = -2V, I_C = -500mA$ | 100 | — | 320 | |
| Collector-Emitter Saturation Voltage | $V_{CE (sat)}$ | $I_C = -1.5A, I_B = -0.03A$ | — | — | -2.0 | V |
| Base-Emitter Voltage | V_{BE} | $V_{CE} = -2V, I_C = -500mA$ | — | — | -1.0 | V |
| Transition Frequency | f_T | $V_{CE} = -2V, I_C = -500mA$ | — | 120 | — | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | — | — | 50 | pF |

Note : h_{FE} Classification O : 100~200, Y : 160~320

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