

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

2SC2882

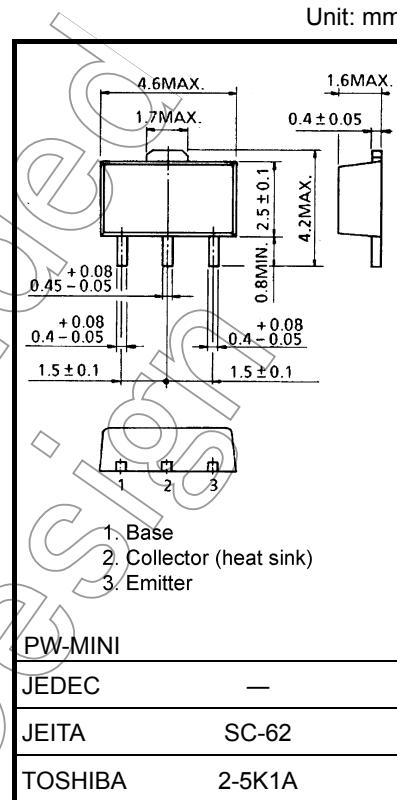
Power Amplifier Applications

Voltage Amplifier Applications

- Suitable for driver of 30 to 35 watts audio amplifier
- Small flat package
- $P_C = 1.0$ to 2.0 W (mounted on a ceramic substrate)
- Complementary to 2SA1202

Absolute Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|-----------------------------|-------------------|------------|------|
| Collector-base voltage | V_{CBO} | 80 | V |
| Collector-emitter voltage | V_{CEO} | 80 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_C | 400 | mA |
| Base current | I_B | 80 | mA |
| Collector power dissipation | P_C | 500 | mW |
| | P_C (Note 1) | 1000 | |
| Junction temperature | T_j | 150 | °C |
| Storage temperature range | T_{stg} | -55 to 150 | °C |



Weight: 0.05 g (typ.)

Note 1: Mounted on a ceramic substrate (250 mm² × 0.8 t)

Note 2: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

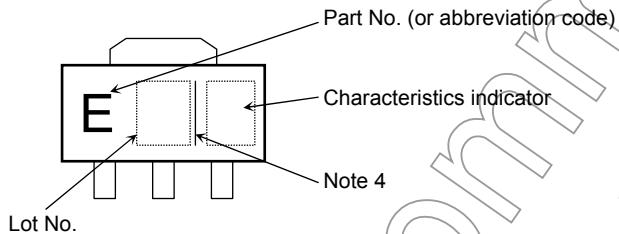
Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/Derating Concept and Methods) and individual reliability data (i.e. reliability test report and estimated failure rate, etc.).

Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|---------------------------------|---|------|------|-----|------|
| Collector cut-off current | I _{CBO} | V _{CB} = 80 V, I _E = 0 | — | — | 0.1 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} = 5 V, I _C = 0 | — | — | 0.1 | μA |
| Collector-emitter breakdown voltage | V _{(BR) CEO} | I _C = 10 mA, I _B = 0 | 80 | — | — | V |
| DC current gain | h _{FE} (1) (Note 3) | I _E = 2 mA, I _C = 50 mA | 70 | — | 240 | — |
| | h _{FE} (2) | V _{CE} = 2 V, I _C = 200 mA | 40 | — | — | |
| Collector-emitter saturation voltage | V _{CE (sat)} | I _C = 200 mA, I _B = 20 mA | — | — | 0.4 | V |
| Base-emitter voltage | V _{BE} | V _{CE} = 2 V, I _C = 5 mA | 0.55 | — | 0.8 | V |
| Transition frequency | f _T | V _{CE} = 10 V, I _C = 10 mA | — | 100 | — | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = 10 V, I _E = 0, f = 1 MHz | — | 10 | — | pF |

Note 3: h_{FE}(1) classification O: 70 to 140, Y: 120 to 240

Marking

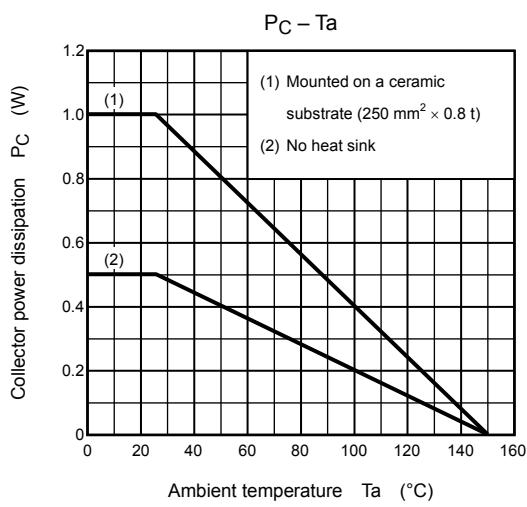
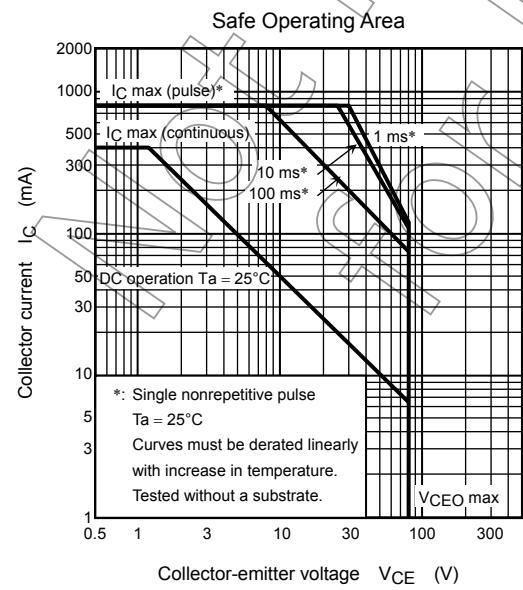
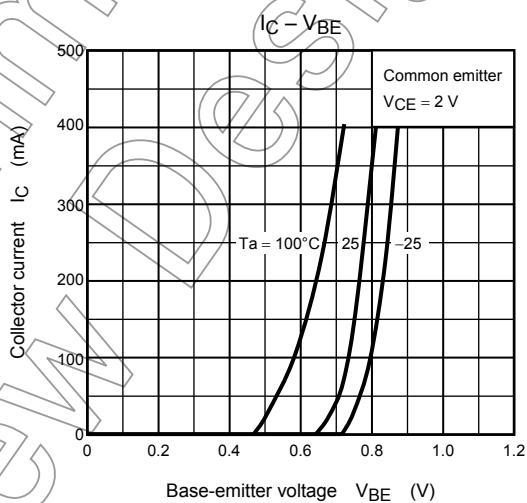
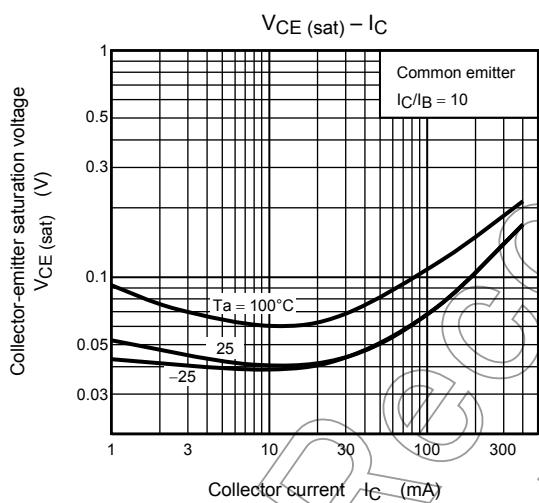
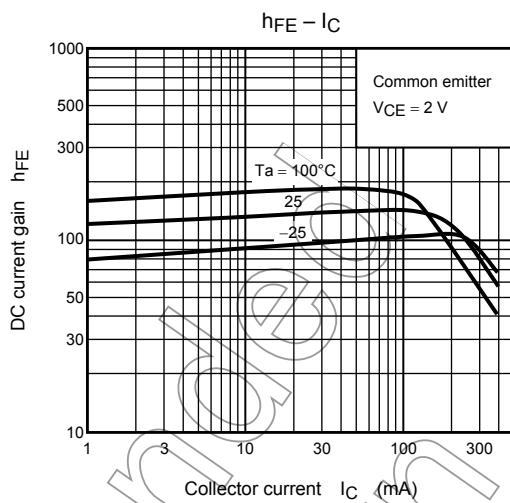
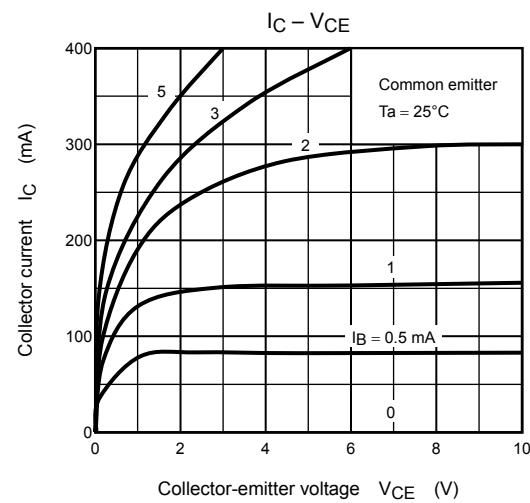


Note 4: A line under a Lot No. identifies the indication of product Labels.

Not underlined: [[Pb]]/INCLUDES > MCV

Underlined: [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

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