

TOSHIBA Transistor Silicon NPN Triple Diffused Type

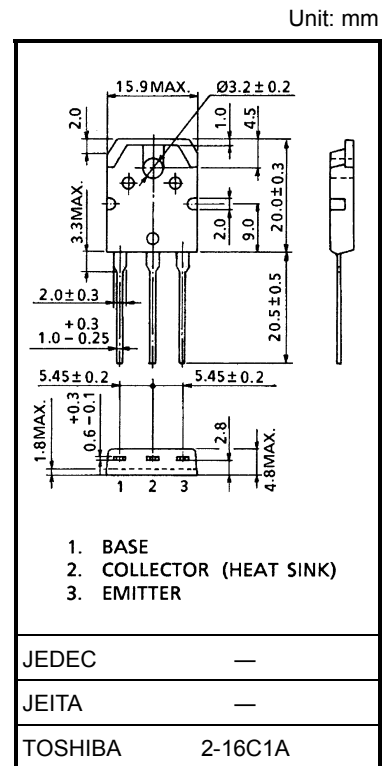
2SC5197

Power Amplifier Applications

- Complementary to 2SA1940
- Suitable for use in 55-W high fidelity audio amplifier's output stage

Maximum Ratings (Tc = 25°C)

| Characteristics | Symbol | Rating | Unit |
|--|------------------|------------|------|
| Collector-base voltage | V _{CBO} | 120 | V |
| Collector-emitter voltage | V _{CEO} | 120 | V |
| Emitter-base voltage | V _{EBO} | 5 | V |
| Collector current | I _C | 8 | A |
| Base current | I _B | 0.8 | A |
| Collector power dissipation (Tc = 25°C) | P _C | 80 | W |
| Junction temperature | T _j | 150 | °C |
| Storage temperature range | T _{stg} | -55 to 150 | °C |



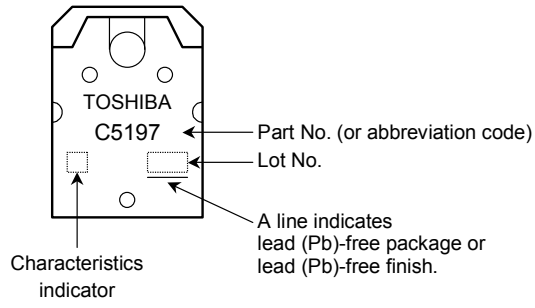
Electrical Characteristics (Tc = 25°C)

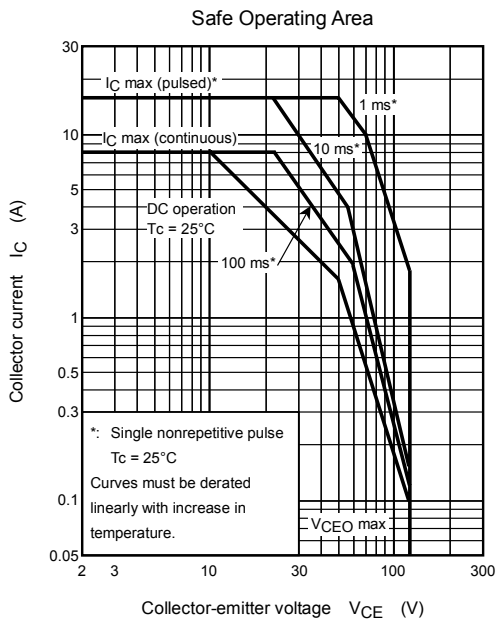
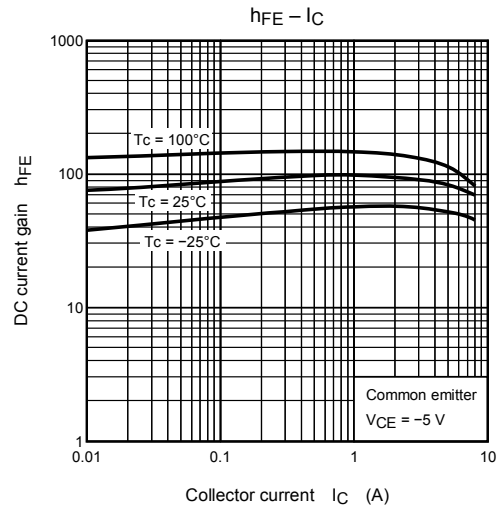
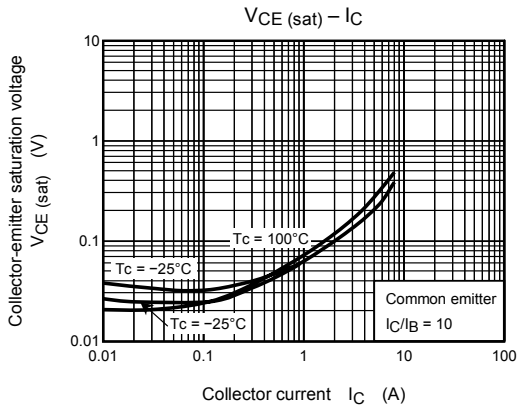
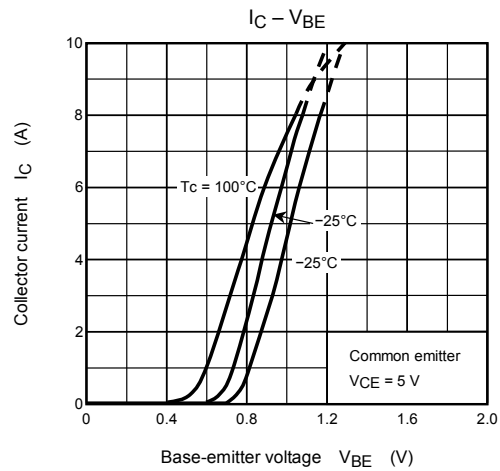
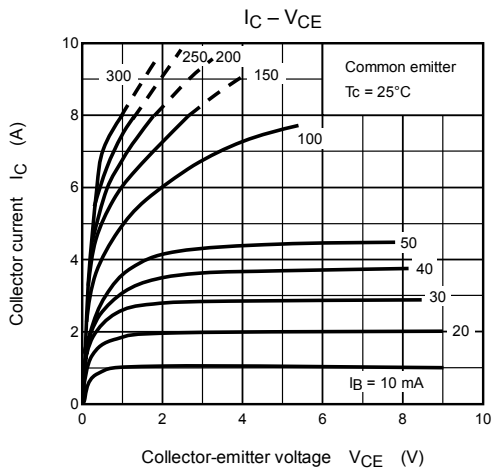
Weight: 4.7 g (typ.)

| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|-------------------------------|---|-----|------|-----|------|
| Collector cut-off current | I _{CBO} | V _{CB} = 120 V, I _E = 0 | — | — | 5.0 | μA |
| Emitter cut-off current | I _{EBO} | V _{EB} = 5 V, I _C = 0 | — | — | 5.0 | μA |
| Collector-emitter breakdown voltage | V _{(BR) CEO} | I _C = 50 mA, I _B = 0 | 120 | — | — | V |
| DC current gain | h _{FE} (1) (Note) | V _{CE} = 5 V, I _C = 1 A | 55 | — | 160 | |
| | h _{FE} (2) | V _{CE} = 5 V, I _C = 4 A | 35 | 75 | — | |
| Collector-emitter saturation voltage | V _{CE (sat)} | I _C = 6 A, I _B = 0.6 A | — | 0.35 | 2.0 | V |
| Base-emitter voltage | V _{BE} | V _{CE} = 5 V, I _C = 4 A | — | 0.95 | 1.5 | V |
| Transition frequency | f _T | V _{CE} = 5 V, I _C = 1 A | — | 30 | — | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = 10 V, I _E = 0, f = 1 MHz | — | 120 | — | pF |

Note: h_{FE} (1) classification R: 55 to 110, O: 80 to 160

Marking





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