

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

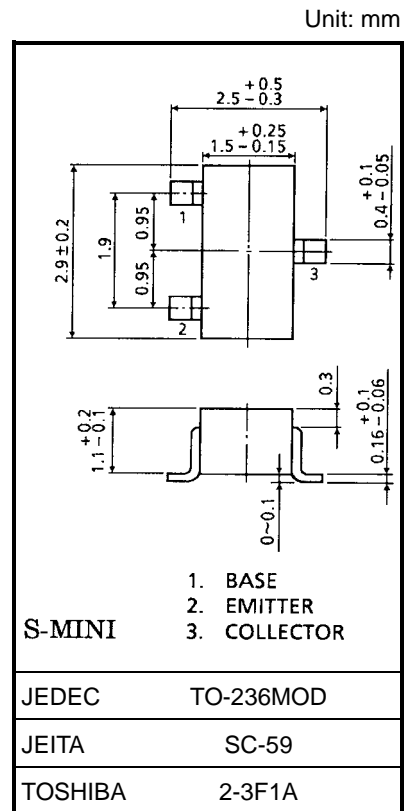
2SC3295

Audio Frequency Amplifier Applications
Switching Applications

- High h_{FE} : $h_{FE} = 600\sim 3600$
- High voltage: $V_{CEO} = 50\text{ V}$
- High collector current: $I_C = 150\text{ mA (max)}$
- Small package

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

| Characteristics | 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 | 150 | mA |
| Base current | I_B | 30 | mA |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature range | T_{stg} | -55~125 | $^\circ\text{C}$ |



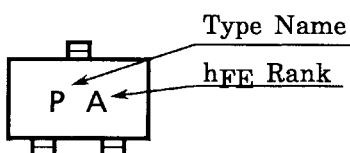
Weight: 0.012 g (typ.)

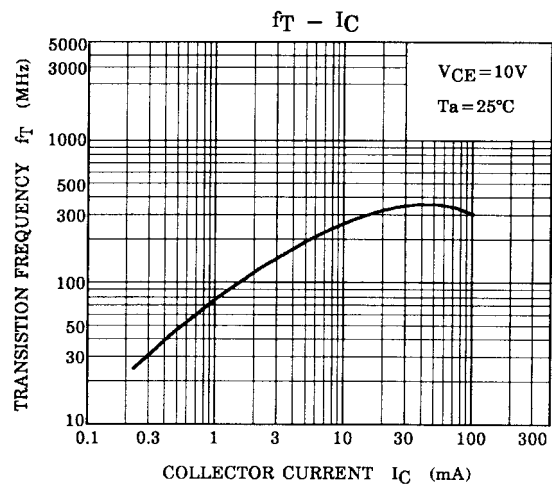
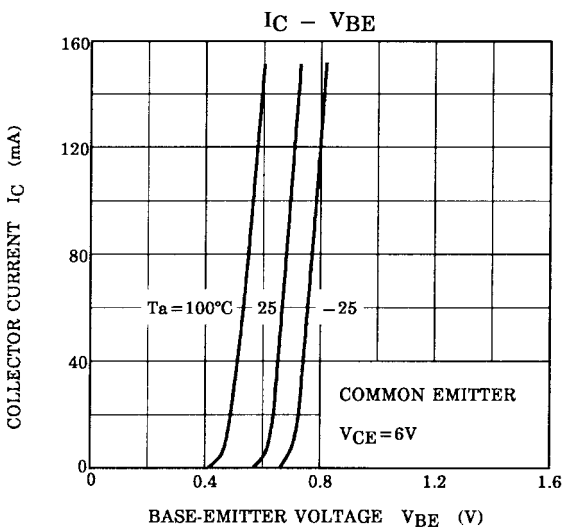
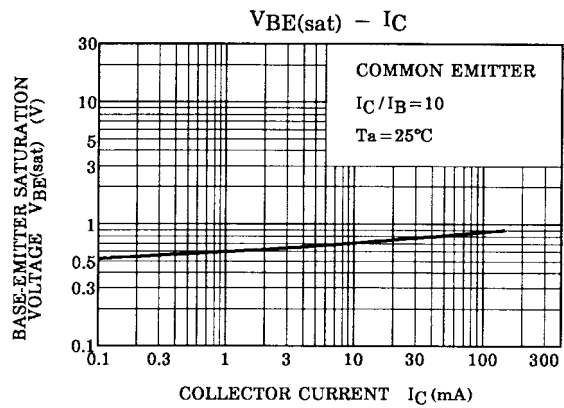
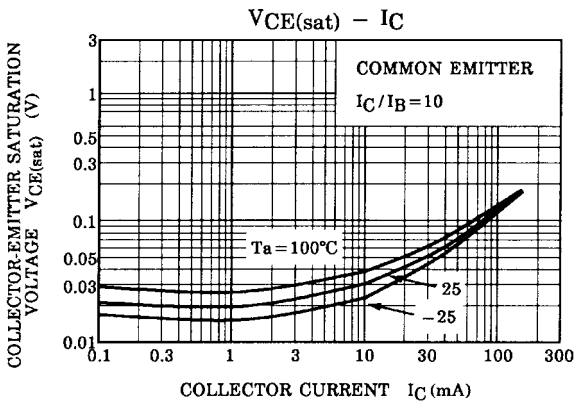
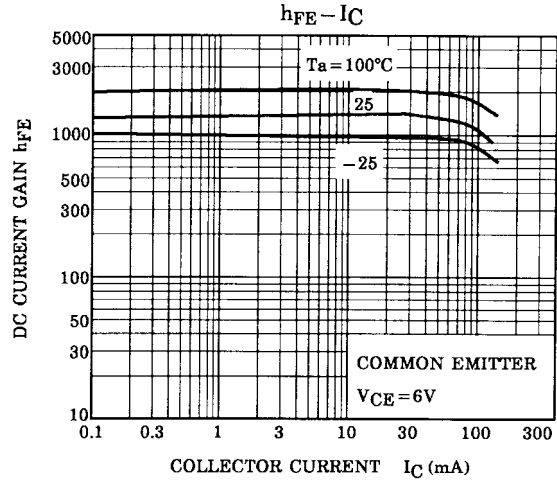
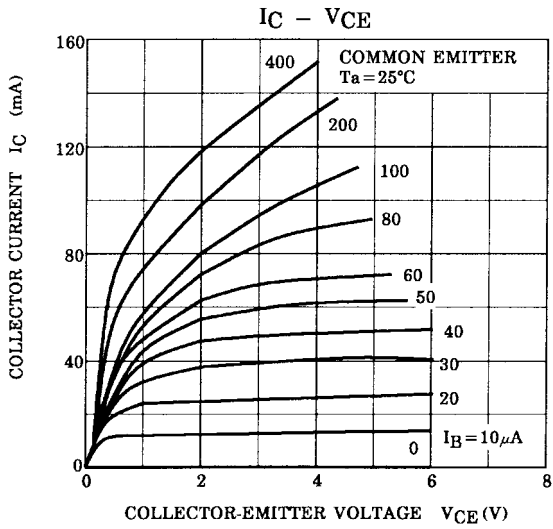
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

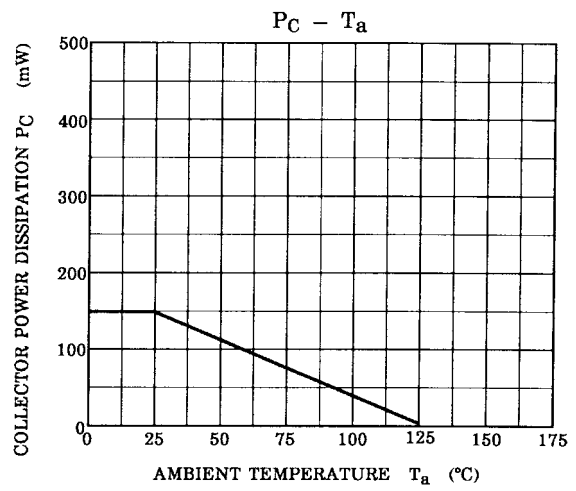
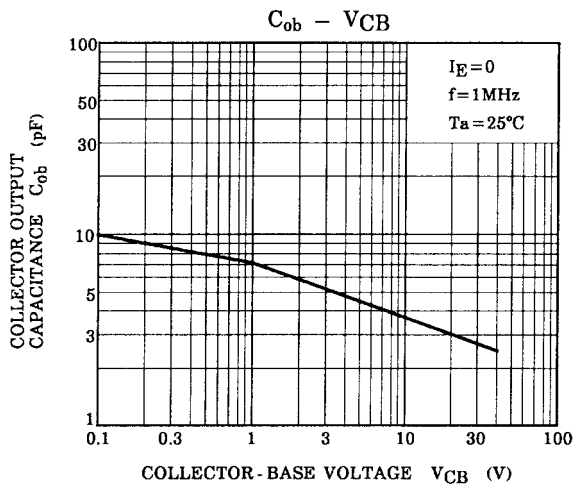
| Characteristics | Symbol | Test Condition | Min | Typ. | Max | Unit |
|--------------------------------------|--------------------|--|-----|------|------|---------------|
| Collector cut-off current | I_{CBO} | $V_{CB} = 50\text{ V}, I_E = 0$ | — | — | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 5\text{ V}, I_C = 0$ | — | — | 0.1 | μA |
| DC current gain | h_{FE} (Note) | $V_{CE} = 6\text{ V}, I_C = 2\text{ mA}$ | 600 | — | 3600 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 100\text{ mA}, I_B = 10\text{ mA}$ | — | 0.12 | 0.25 | V |
| Transition frequency | f_T | $V_{CE} = 10\text{ V}, I_C = 10\text{ mA}$ | 100 | 250 | — | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = 10\text{ V}, I_E = 0, f = 1\text{ MHz}$ | — | 3.5 | — | pF |
| Noise figure | NF (1) | $V_{CE} = 6\text{ V}, I_C = 0.1\text{ mA}, f = 100\text{ Hz}, R_g = 10\text{ k}\Omega$ | — | 0.5 | — | dB |
| | NF (2) | $V_{CE} = 6\text{ V}, I_C = 0.1\text{ mA}, f = 1\text{ kHz}, R_g = 10\text{ k}\Omega$ | — | 0.3 | — | |

Note: h_{FE} classification A: 600~1800, B: 1200~3600

Marking







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