

TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process)

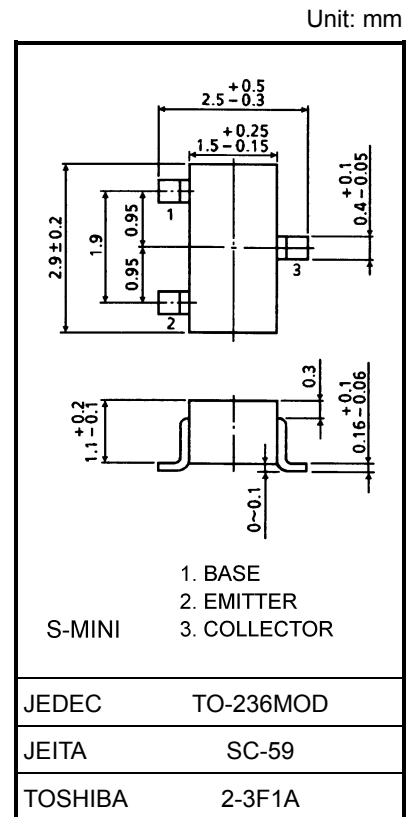
# 2SC2532

Audio Frequency Amplifier Applications  
 Driver Stage for LED Lamp Applications  
 Temperature Compensation Applications

- High  $h_{FE}$ :  $h_{FE} (1) = 5000$  (min) ( $I_C = 10$  mA)  
 $h_{FE} (2) = 10000$  (min) ( $I_C = 100$  mA)

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

| Characteristics             | Symbol    | Rating  | Unit             |
|-----------------------------|-----------|---------|------------------|
| Collector-base voltage      | $V_{CBO}$ | 40      | V                |
| Collector-emitter voltage   | $V_{CEO}$ | 40      | V                |
| Emitter-base voltage        | $V_{EBO}$ | 10      | V                |
| Collector current           | $I_C$     | 300     | mA               |
| Base current                | $I_B$     | 60      | mA               |
| Collector power dissipation | $P_C$     | 150     | mW               |
| Junction temperature        | $T_j$     | 125     | $^\circ\text{C}$ |
| Storage temperature range   | $T_{stg}$ | -55~125 | $^\circ\text{C}$ |

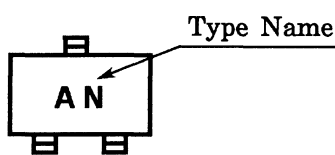


Weight: 0.012 g (typ.)

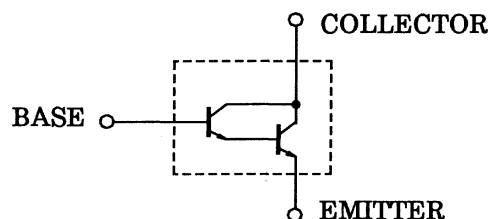
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

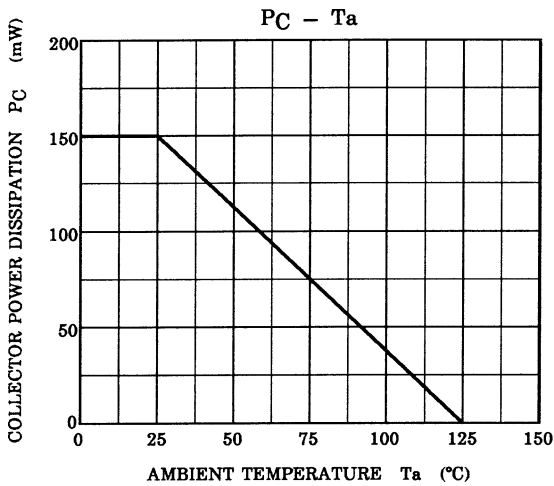
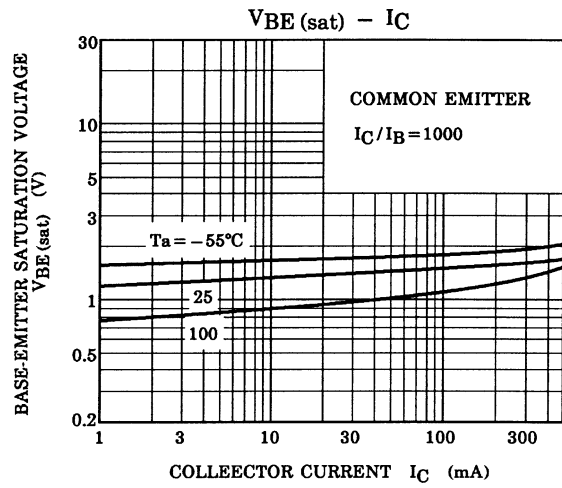
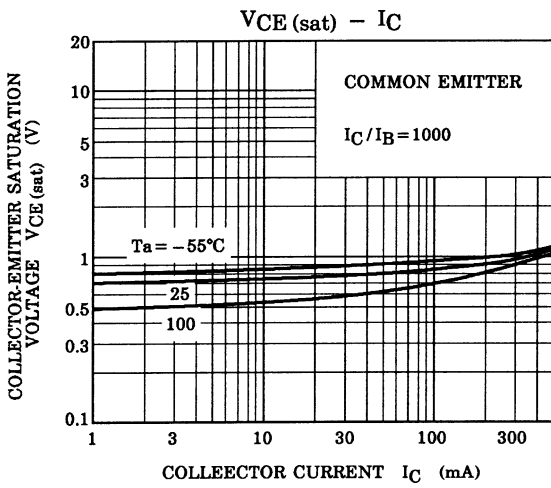
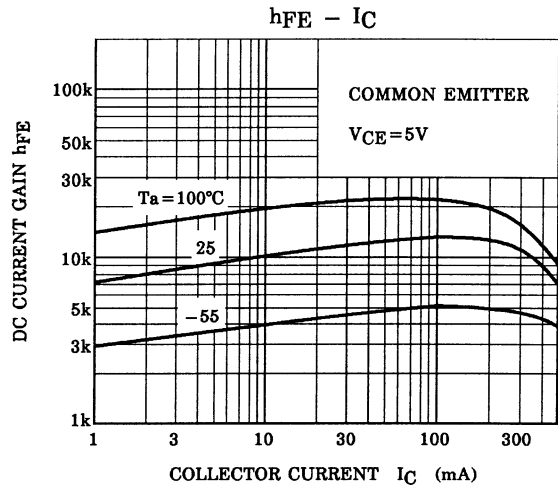
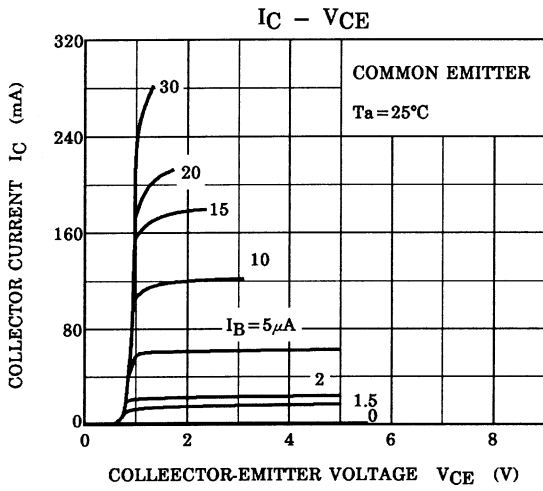
| Characteristics                      | Symbol        | Test Condition                 | Min   | Typ. | Max | Unit          |
|--------------------------------------|---------------|--------------------------------|-------|------|-----|---------------|
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = 40$ V, $I_E = 0$     | —     | —    | 0.1 | $\mu\text{A}$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = 8$ V, $I_C = 0$      | —     | —    | 0.1 | $\mu\text{A}$ |
| DC current gain                      | $h_{FE} (1)$  | $V_{CE} = 5$ V, $I_C = 10$ mA  | 5000  | —    | —   |               |
|                                      | $h_{FE} (2)$  | $V_{CE} = 2$ V, $I_C = 100$ mA | 10000 | —    | —   |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 300$ mA, $I_B = 0.3$ mA | —     | 0.9  | 1.3 | V             |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CB} = 2$ V, $I_C = 100$ mA | —     | 1.25 | 1.6 | V             |

### Marking



### Equivalent Circuit





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