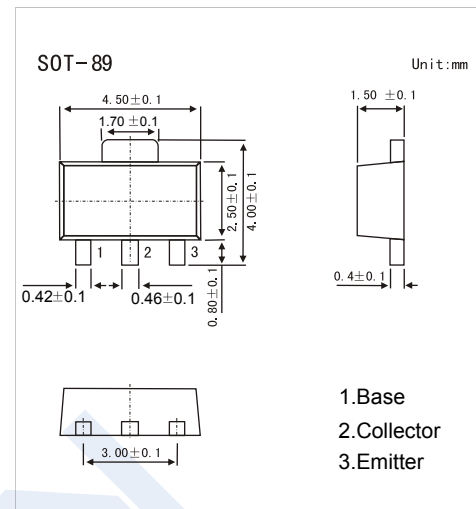


NPN Transistors

2KD3004

■ Features

- Low $V_{CE(sat)}$
- Compliments to 2KB4004

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Rating | Unit |
|---|-----------|-------------|------------------|
| Collector-Base Voltage | V_{CBO} | 40 | V |
| Collector-Emitter Voltage | V_{CEO} | 32 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current (DC) $P_w=20\text{ms, duty}=1/2$ | I_c | 1 | A |
| | | 2 | A |
| Collector Power Dissipation | P_c * | 0.5 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature Range | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

* mounted on a 40x40x0.7mm ceramic board.

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

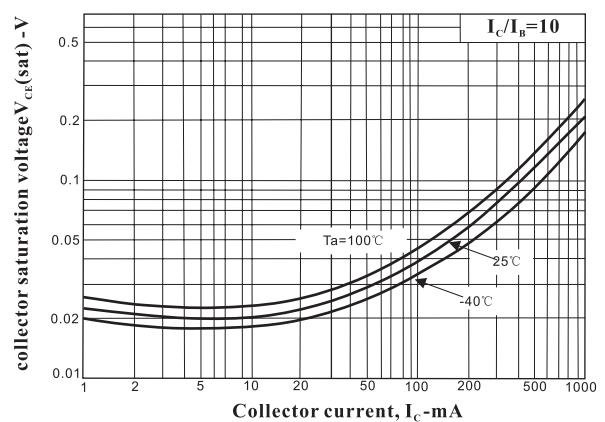
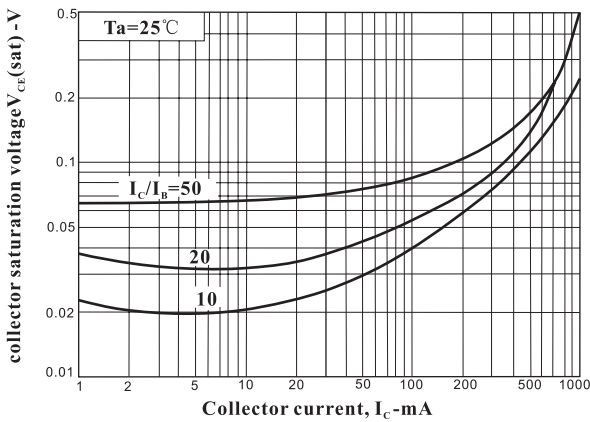
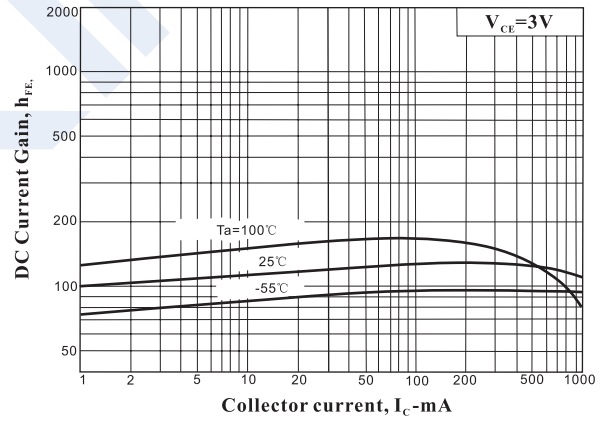
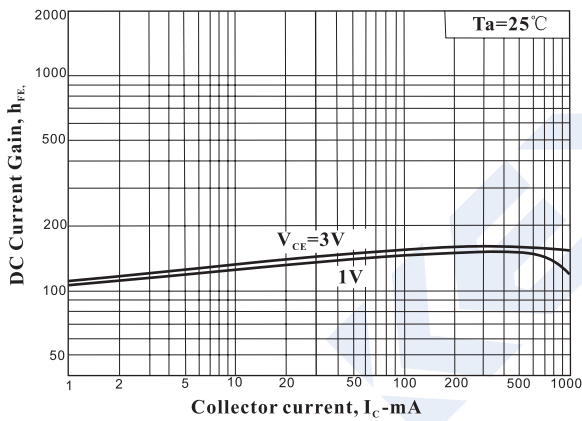
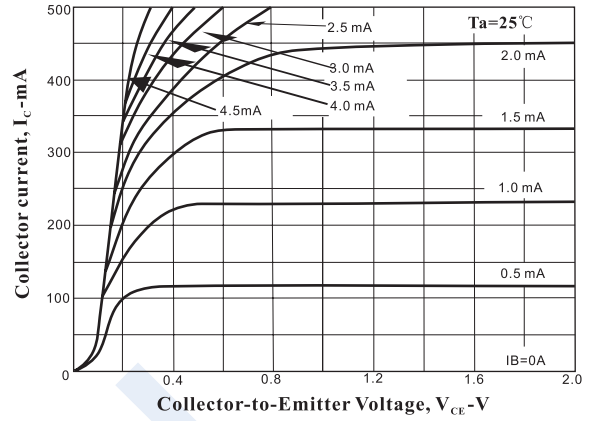
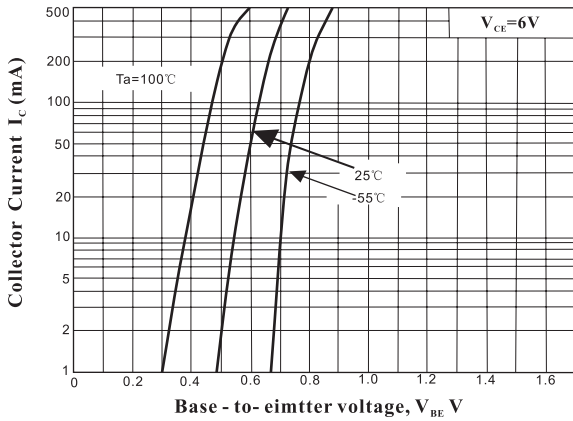
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|--------------------------------------|---------------|--|-----|------|-----|---------------|
| Collector- base breakdown voltage | V_{CBO} | $I_c = 50 \mu\text{A}, I_E = 0$ | 40 | | | V |
| Collector- emitter breakdown voltage | V_{CEO} | $I_c = 1 \text{mA}, I_B = 0$ | 32 | | | |
| Emitter - base breakdown voltage | V_{EBO} | $I_E = 50 \mu\text{A}$ | 5 | | | |
| Collector-base cut-off current | I_{CBO} | $V_{CB} = 20 \text{V}, I_E = 0$ | | | 0.5 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 4 \text{V}, I_C = 0$ | | | 0.5 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_c = 500 \text{mA}, I_B = 50 \text{mA}$ | | 0.15 | 0.4 | V |
| DC current gain | h_{FE} | $V_{CE} = 3 \text{V}, I_c = 100 \text{mA}$ | 100 | | 300 | |
| Collector output capacitance | C_{ob} | $V_{CB} = 10 \text{V}, I_E = 0, f = 1 \text{MHz}$ | | 15 | | pF |
| Transition frequency | f_T | $V_{CE} = 5 \text{V}, I_c = -50 \text{mA}, f = 100 \text{MHz}$ | | 150 | | MHz |

■ Marking

| Marking | K00Q |
|---------|------|
|---------|------|

2KD3004

■ Typical Characteristics



2KD3004

■ Typical Characteristics

