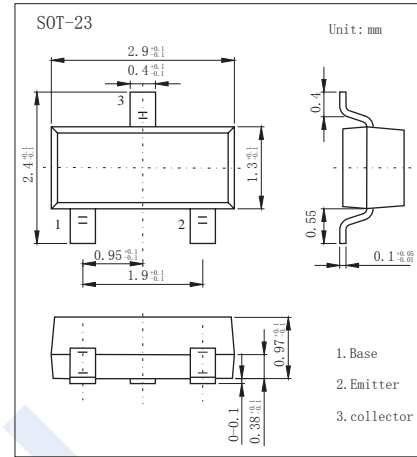


## PNP Transistors

## 2KB4003

## ■ Features

- Ideally suited for automatic insertion
- Epitaxial planar die construction
- Complementary NPN type available(2KD3003)

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

| Parameter                      | Symbol    | Rating     | Unit             |
|--------------------------------|-----------|------------|------------------|
| Collector - Base Voltage       | $V_{CB0}$ | -50        | V                |
| Collector - Emitter Voltage    | $V_{CE0}$ | -45        |                  |
| Emitter - Base Voltage         | $V_{EB0}$ | -5         |                  |
| Collector Current - Continuous | $I_C$     | -0.5       | A                |
| Collector Power Dissipation    | $P_C$     | 0.3        | W                |
| Junction Temperature           | $T_J$     | 150        | $^\circ\text{C}$ |
| Storage Temperature range      | $T_{stg}$ | -55 to 150 |                  |

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

| Parameter                            | Symbol        | Test Conditions   | Min | Typ | Max  | Unit          |
|--------------------------------------|---------------|---|-----|-----|------|---------------|
| Collector- base breakdown voltage    | $V_{CB0}$     | $I_C = -100\mu\text{A}, I_E = 0$                                | -50 |     |      | V             |
| Collector- emitter breakdown voltage | $V_{CE0}$     | $I_C = -10\text{ mA}, I_B = 0$                                  | -45 |     |      |               |
| Emitter - base breakdown voltage     | $V_{EB0}$     | $I_E = -100\mu\text{A}, I_C = 0$                                | -5  |     |      |               |
| Collector-base cut-off current       | $I_{CBO}$     | $V_{CB} = -45\text{ V}, I_E = 0$                                |     |     | -0.1 | $\mu\text{A}$ |
| Collector- emitter cut-off current   | $I_{CEO}$     | $V_{CE} = -40\text{ V}, I_B = 0$                                |     |     | -0.2 |               |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -4\text{ V}, I_C = 0$                                 |     |     | -0.1 |               |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -500\text{ mA}, I_B = -50\text{ mA}$                     |     |     | -0.7 | V             |
| Base - emitter saturation voltage    | $V_{BE(sat)}$ | $I_C = -500\text{ mA}, I_B = -50\text{ mA}$                     |     |     | -1.2 |               |
| DC current gain                      | $h_{fe} (1)$  | $V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$                    | 250 |     | 630  |               |
|                                      | $h_{fe} (2)$  | $V_{CE} = -1\text{ V}, I_C = -500\text{ mA}$                    | 40  |     |      |               |
| Transition frequency                 | $f_T$         | $V_{CE} = -5\text{ V}, I_C = -10\text{ mA}, f = 100\text{ MHz}$ | 100 |     |      | MHz           |

## ■ Marking

|         |    |
|---------|----|
| Marking | 2E |
|---------|----|

# PNP Transistors

## 2KB4003

■ Typical Characteristics

