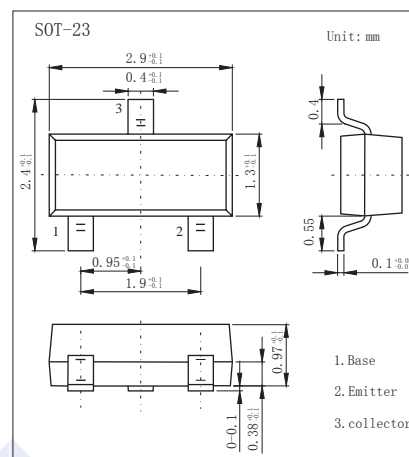


NPN Transistors

2KC1003

■ Features

- High Voltage Transistors



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

| Parameter | Symbol | Rating | Unit |
|----------------------------------|----------------|-------------|------------------|
| Collector-base voltage | V_{CB0} | 180 | V |
| Collector-emitter voltage | V_{CE0} | 160 | V |
| Emitter-base voltage | V_{EB0} | 6 | V |
| Collector current-continuous | I_C | 0.6 | A |
| Collector Power Dissipation | P_C | 300 | mW |
| Junction and storage temperature | T_J, T_{stg} | -55 to +150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--|---------------|---|-----|-----|-----|------|
| Collector-base breakdown voltage | V_{CB0} | $I_C = 100\mu\text{A}, I_E = 0$ | 180 | | | V |
| Collector-emitter breakdown voltage * | V_{CE0} | $I_C = 1.0\text{ mA}, I_B = 0$ | 160 | | | V |
| Emitter-base breakdown voltage | V_{EB0} | $I_E = 10\mu\text{A}, I_C = 0$ | 6 | | | V |
| Collector cutoff current | I_{CB0} | $V_{CB} = 120\text{ V}, I_E = 0$ | | | 50 | nA |
| Emitter cutoff current | I_{EB0} | $V_{EB} = 4.0\text{ V}, I_C = 0$ | | | 50 | nA |
| DC current gain * | h_{FE} | $I_C = 1.0\text{ mA}, V_{CE} = 5\text{ V}$ | 80 | | | |
| | | $I_C = 10\text{ mA}, V_{CE} = 5\text{ V}$ | 100 | | 300 | |
| | | $I_C = 50\text{ mA}, V_{CE} = 5\text{ V}$ | 50 | | | |
| Collector-emitter saturation voltage * | $V_{CE(sat)}$ | $I_C = 50\text{ mA}, I_B = 5.0\text{ mA}$ | | | 0.5 | V |
| Base-emitter saturation voltage * | $V_{BE(sat)}$ | $I_C = 50\text{ mA}, I_B = 5.0\text{ mA}$ | | | 1.0 | V |
| Transistor frequency | f_T | $V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$ | 100 | | | MHz |

* Pulse Test: Pulse Width = 300 μs , Duty Cycle=2.0%.

■ Marking

| | |
|---------|----|
| Marking | 5A |
|---------|----|

2KC1003

Typical Characteristics

