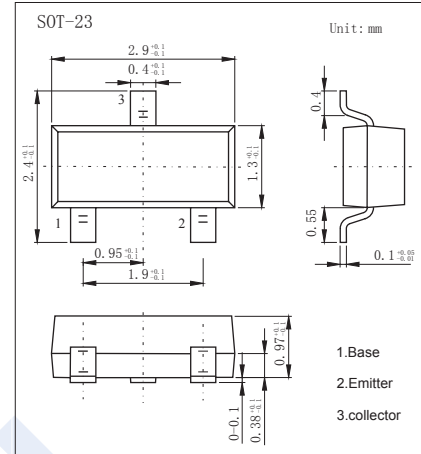


NPN Transistors

2SC4782

■ Features

- Collector Current Capability $I_C=200\text{mA}$
- Collector Emitter Voltage $V_{CE0}=20\text{V}$

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

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|------------|------------------|
| Collector - Base Voltage | V_{CBO} | 25 | V |
| Collector - Emitter Voltage | V_{CEO} | 20 | |
| Emitter - Base Voltage | V_{EBO} | 5 | |
| Collector Current - Continuous | I_C | 200 | mA |
| Collector Current - Pulse | I_{CP} | 300 | |
| Collector Power Dissipation | P_C | 200 | mW |
| 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_{CBO} | $I_C=100\ \mu\text{A}, I_E=0$ | 25 | | | V |
| Collector- emitter breakdown voltage | V_{CEO} | $I_C=1\ \text{mA}, I_B=0$ | 20 | | | |
| Emitter - base breakdown voltage | V_{EBO} | $I_E=100\ \mu\text{A}, I_C=0$ | 5 | | | |
| Collector-base cut-off current | I_{CBO} | $V_{CB}=10\ \text{V}, I_E=0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=4\ \text{V}, I_C=0$ | | | 0.1 | μA |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=10\ \text{mA}, I_B=1\ \text{mA}$ | | | 0.25 | V |
| Base - emitter saturation voltage | $V_{BE(sat)}$ | $I_C=10\ \text{mA}, I_B=1\ \text{mA}$ | | | 1 | |
| DC current gain | h_{FE} | $V_{CE}=1\ \text{V}, I_C=10\ \text{mA}$ | 40 | | 200 | |
| Turn-on time | t_{on} | See specified test circuit | | 17 | | ns |
| Storage time | t_{stg} | | | 15 | | |
| Turn-off time | t_{off} | | | 7 | | |
| Collector output capacitance | C_{ob} | | $V_{CB}=10\ \text{V}, I_E=0, f=1\ \text{MHz}$ | | | |
| Transition frequency | f_T | $V_{CB}=10\ \text{V}, I_E=-10\ \text{mA}, f=200\ \text{MHz}$ | 200 | | | MHz |

■ Classification of h_{FE}

| Type | 2SC4782-P | 2SC4782-Q | 2SC4782-R |
|---------|-----------|-----------|-----------|
| Range | 40-80 | 60-120 | 90-200 |
| Marking | DVP | DVQ | DVR |

NPN Transistors

2SC4782

Typical Characteristics

