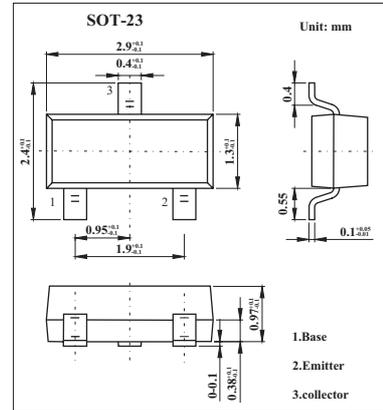


2SC4782

■ Features

- High-speed switching.
- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.



■ 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 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Peak collector current | I_{CP} | 300 | mA |
| Collector current | I_C | 200 | mA |
| Collector power dissipation | P_C | 200 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

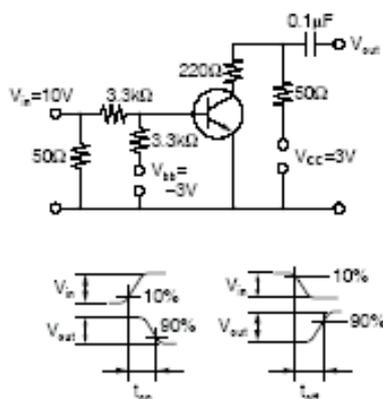
2SC4782

■ Electrical Characteristics Ta = 25°C

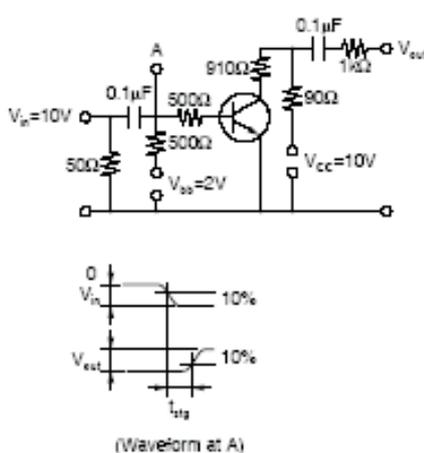
| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit |
|--------------------------------------|----------------------|--|-----|------|------|------|
| Collector cutoff current | ICBO | V _{CB} = 20V, I _E =0 | | | 0.1 | μA |
| Emitter cutoff current | IEBO | V _{EB} = 2V, I _C =0 | | | 0.1 | μA |
| Forward current transfer ratio | hFE | V _{CE} = 10 V, I _C = 1 mA | 40 | | 200 | |
| Collector-emitter saturation voltage | V _{CE(sat)} | I _C = 10mA , I _B = 1mA | | 0.17 | 0.25 | V |
| Base-emitter saturation voltage | V _{BE(sat)} | I _C = 10mA , I _B = 1mA | | 0.76 | 1.0 | V |
| Transition frequency | f _T | V _{CB} = 10 V, I _E = -1 mA, f = 200 MHz | 200 | 500 | | MHz |
| Reverse transfer capacitance | C _{re} | V _{CB} = 10 V, I _E = -1 mA, f = 10.7 MHz | | 2 | 4 | pF |
| Turn-on time | t _{on} | Refer to the measurement circuit | | 17 | | ns |
| Turn-off time | t _{off} | | | 15 | | ns |
| Storage time | t _{stg} | | | 7 | | ns |

Switching time measurement circuit

t_{on}, t_{off} Test Circuit



t_{stg} Test Circuit



■ hFE Classification

| Marking | DV | | |
|---------|-------|--------|--------|
| | P | Q | R |
| hFE | 40~80 | 60~120 | 90~200 |