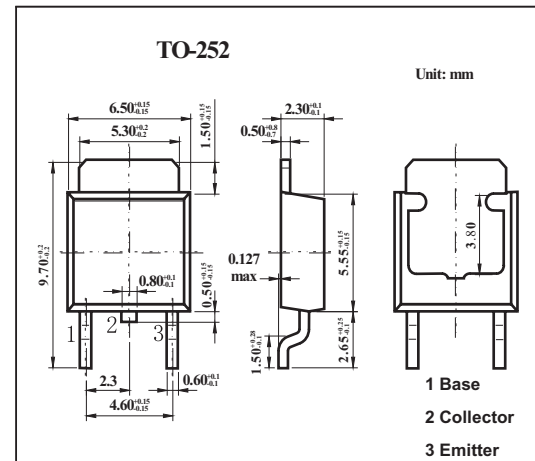


Silicon PNP Transistor

2SA1923

■ Features

- High Voltage: $V_{CB0} = -400V$
- Low Saturation Voltage: $V_{CE(sat)} = -1V(\text{Max.})$
 $I_C = -100mA, I_B = -10mA$

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

| Parameter | Symbol | Rating | Unit |
|---|-----------|------------|------------|
| Collector-to-Base Voltage | V_{CB0} | -400 | V |
| Collector-to-Emitter Voltage | V_{CEO} | -400 | V |
| Emitter-to-Base Voltage | V_{EBO} | -7 | V |
| Collector Current | I_C | -0.5 | A |
| Collector Current (Pulse) | I_{CP} | -1 | A |
| Base Current | I_B | -0.25 | A |
| Collector Dissipation $T_c = 25^\circ C$ | P_C | 1 | W |
| | | 10 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 to 150 | $^\circ C$ |

2SA1923

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit | |
|---|----------------------|---|------|-------|------|------|----|
| Collector Cutoff Current | ICBO | V _{CB} =-400V, I _E =0 | | | -10 | μA | |
| Emitter Cutoff Current | IEBO | V _{EB} =-7V, I _C =0 | | | -1 | μA | |
| Collector-to-Emitter Breakdown Voltage | V _{(BR)CEO} | I _C =-10mA, I _B =0 | -400 | | | V | |
| DC Current Gain | h _{FE} | V _{CE} =-5V, I _C =-20mA | 140 | | 450 | | |
| | | V _{CE} =-5V, I _C =-100mA | 140 | | 400 | | |
| Collector-to-Emitter Saturation Voltage | V _{CE(sat)} | I _C =-100mA, I _B =-10mA | | -0.4 | -1.0 | V | |
| Base-to-Emitter Saturation Voltage | V _{BE(sat)} | I _C =-100mA, I _B =-10mA | | -0.76 | -0.9 | V | |
| Transition Frequency | f _T | V _{CE} =-5V, I _C =-50mA | | 35 | | MHz | |
| Collector Output Capacitance | C _{ob} | V _{CB} =-10V, f=1MHz, I _E =0 | | 18 | | pF | |
| Switching Time Turn-on Time | t _{on} | <p> $20\mu\text{s}$ INPUT I_{B1} OUTPUT I_{B2} I_{B2} $2\text{k}\Omega$ $V_{CC} = -200\text{V}$ $I_{B1} = 10\text{mA}$, $I_{B2} = 20\text{mA}$, DUTY CYCLE $\leq 1\%$ </p> | | 0.2 | | μs | |
| Switching Time Storage Time | t _{stg} | | | | 2.3 | | μs |
| Switching Time Fall Time | t _f | | | | 0.2 | | μs |