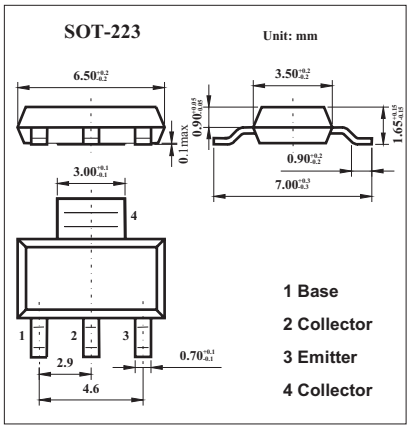
# PNP Silicon High Voltage Transistor

# FZT593




## ■ Features

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## ■ Absolute Maximum Ratings Ta = 25℃

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-Base Voltage | $V_{CBO}$ | -120 | V |
| Collector-Emitter Voltage | $V_{CEO}$ | -100 | V |
| Emitter-Base Voltage | $V_{EBO}$ | -5 | V |
| Peak Pulse Current | $I_{CM}$ | -2 | A |
| Continuous Collector Current | $I_C$ | -1 | A |
| Base Current | IB | -200 | mA |
| Power Dissipation at $T_{amb}$=25℃ | $P_{tot}$ | 2 | W |
| Operating and Storage Temperature Range | $T_j$:$T_{stg}$ | -55 to +150 | ℃ |

# FZT593

## ■ Electrical Characteristics Ta = 25℃

| Parameter | Symbol | Testconditons | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Breakdown Voltages | $V_{(BR)CBO}$ | $I_C$=-100μA | -120 | | | V |
| Breakdown Voltages | $V_{(BR)CEO}$ | $I_C$=-10mA* | -100 | | | V |
| Breakdown Voltages | $V_{(BR)EBO}$ | $I_E$=-100μA | -5 | | | V |
| Collector Cut-Off Current | $I_{CBO}$ | $V_{CB}$=-100V | | | -100 | nA |
| Emitter Cut-Off Current | $I_{EBO}$ | $V_{EB}$=-4V | | | -100 | nA |
| Collector-Emitter Cut-Off Current | $I_{CES}$ | $V_{CES}$=-100V | | | -100 | nA |
| Saturation Voltages | $V_{CE(sat)}$ | $I_C$=-250mA,$I_B$=-25mA* | | | -0.2 | V |
| | | $I_C$=-500mA $I_B$=-50mA* | | | -0.3 | V |
| | $V_{BE(sat)}$ | $I_C$=-500mA,$I_B$=-50mA* | | | -1.1 | V |
| Base-Emitter Turn-on Voltage | $V_{BE(on)}$ | $I_C$=-1mA, $V_{CE}$=-5V* | | | -1.0 | V |
| Static Forward Current Transfer Ratio | $h_{FE}$ | $I_C$=-1mA, $V_{CE}$=-5V | 100 | | | |
| | | $I_C$=-250mA,$V_{CE}$=-5V* | 100 | | | |
| | | $I_C$=-500mA, $V_{CE}$=-5V* | 100 | 300 | | |
| | | $I_C$=-1A, $V_{CE}$=-5V* | 50 | | | |
| Transition Frequency | $f_T$ | $I_C$=-50mA, $V_{CE}$=-10V,f=100MHz | 50 | | | MHz |
| Output Capacitance | $C_{obo}$ | $V_{CB}$=-10V, f=1MHz | | 5 | | pF |

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%

## ■ Marking

| Marking | FZT593 |
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