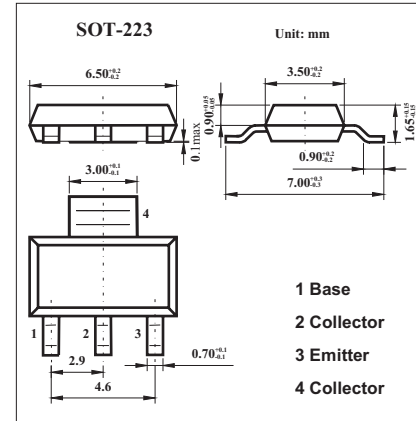


NPN Silicon Planar Medium Power Transistor

FZT657

■ Features

- Low saturation voltage

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

| Parameter | Symbol | Rating | Unit |
|---|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CBO} | 300 | V |
| Collector-Emitter Voltage | V_{CEO} | 300 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Peak Pulse Current | I_{CM} | 1 | A |
| Continuous Collector Current | I_C | 0.5 | A |
| Power Dissipation at $T_{amb}=25^\circ\text{C}$ | P_{tot} | 2 | W |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -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 | $V_{(BR)CBO}$ | $I_C=100\mu\text{A}$ | 300 | | | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=10\text{mA}^*$ | 300 | | | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}$ | 5 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=200\text{V}$ | | | 0.1 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=3\text{V}$ | | | 0.1 | μA |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=100\text{mA}, I_B=10\text{mA}^*$ | | | 0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=100\text{mA}, I_B=10\text{mA}^*$ | | | 1.0 | V |
| Base-Emitter Turn-On Voltage | $V_{BE(on)}$ | $I_C=100\text{mA}, V_{CE}=5\text{V}^*$ | | | 1.0 | V |
| Static Forward Current Transfer Ratio | h_{FE} | $I_C=10\text{mA}, V_{CE}=5\text{V}^*$ | 40 | | | |
| | | $I_C=100\text{mA}, V_{CE}=5\text{V}^*$ | 50 | | | |
| Transition Frequency | f_T | $I_C=10\text{mA}, V_{CE}=20\text{V}, f=20\text{MHz}$ | 30 | | | MHz |
| Output Capacitance | C_{obo} | $V_{CB}=20\text{V}, f=1\text{MHz}$ | | | 20 | pF |

* Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$

■ Marking

| | |
|---------|--------|
| Marking | FZT657 |
|---------|--------|