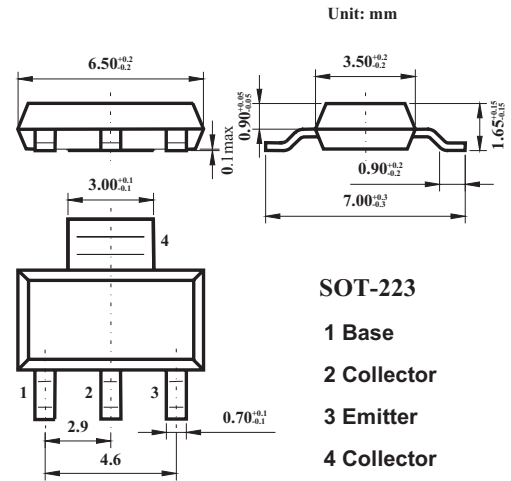


Features

- Low saturation voltage



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

| Parameter | Symbol | Rating | Unit |
|---|----------------|-------------|------------------|
| Collector-Base Voltage | V_{CB0} | 120 | V |
| Collector-Emitter Voltage | V_{CE0} | 100 | V |
| Emitter-Base Voltage | V_{EB0} | 5 | V |
| Peak Pulse Current | I_{CM} | 6 | A |
| Continuous Collector Current | I_C | 2 | 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 | Testconditons | Min | Typ. | Max | Unit |
|---------------------------------------|---------------|---|-----|------|------|---------------|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=100\mu\text{A}$ | 120 | | | V |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=10\text{mA}^*$ | 100 | | | V |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=100\mu\text{A}$ | 5 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=100\text{V}$ | | | 0.1 | μA |
| | | $V_{CB}=100\text{V}, T_{amb}=100^\circ\text{C}$ | | | 10 | μA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=4\text{V}$ | | | 0.1 | μA |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=1\text{A}, I_B=100\text{mA}^*$ | | 0.13 | 0.3 | V |
| | | $I_C=2\text{A}, I_B=200\text{mA}^*$ | | 0.23 | 0.5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=1\text{A}, I_B=100\text{mA}^*$ | | 0.9 | 1.25 | V |
| Base-Emitter Turn-On Voltage | $V_{BE(on)}$ | $I_C=1\text{A}, V_{CE}=2\text{V}^*$ | | 0.8 | 1.0 | V |
| Static Forward Current Transfer Ratio | h_{FE} | $I_C=50\text{mA}, V_{CE}=2\text{V}^*$ | 70 | 200 | | |
| | | $I_C=500\text{mA}, V_{CE}=2\text{V}^*$ | 100 | 200 | 300 | |
| | | $I_C=1\text{A}, V_{CE}=2\text{V}^*$ | 55 | 110 | | |
| | | $I_C=2\text{A}, V_{CE}=2\text{V}^*$ | 25 | 55 | | |
| Transition Frequency | f_T | $I_C=100\text{mA}, V_{CE}=5\text{V}, f=100\text{MHz}$ | 140 | 175 | | MHz |
| Output Capacitance | C_{obo} | $V_{CB}=10\text{V}, f=1\text{MHz}$ | | | 30 | pF |
| Switching Times | t_{on} | $I_C=500\text{mA}, V_{CC}=10\text{V}$ | | 80 | | ns |
| | t_{off} | $I_{B1}=I_{B2}=50\text{mA}$ | | 1200 | | ns |

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