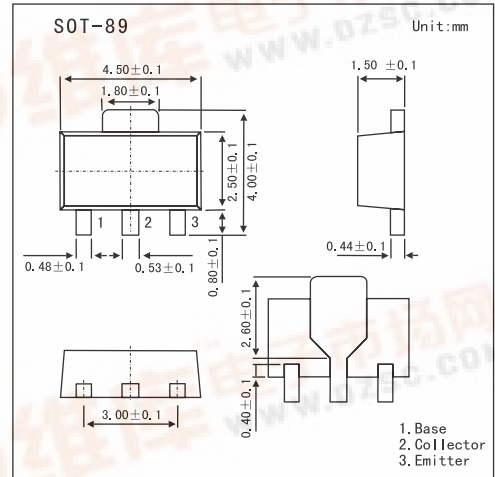


SMD Type Transistors

NPN Silicon Planar Medium Power Transistor
FCX493

■ Features

-



■ Absolute Maximum Ratings Ta = 25°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 |
| Continuous Collector Current | I _c | 1 | mA |
| Peak Pulse Current | I _{CM} | 2 | A |
| Base Current | I _B | 200 | mA |
| Power Dissipation at T _{amb} =25°C | P _{tot} | 1 | W |
| Operating and Storage Temperature Range | T _j ; T _{stg} | -65 to 150 | °C |

FCX493

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditons | Min | Max | Unit |
|---------------------------------------|----------------|----------------------------------|-----|------|------|
| Breakdown Voltages | $V_{(BR)CBO}$ | $I_C=100\mu A$ | 120 | | V |
| Breakdown Voltages | $V_{CEO(sus)}$ | $I_C=10mA^*$ | 100 | | V |
| Breakdown Voltages | $V_{(BR)EBO}$ | $I_E=100\mu A$ | 5 | | V |
| Collector Cut-Off Currents | I_{CBO} | $V_{CB}=100V$ | | 100 | nA |
| | I_{CES} | $V_{CES}=100V$ | | 100 | nA |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=4V$ | | 100 | nA |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=500mA, I_B=50mA$ | | 0.3 | V |
| | | $I_C=1A, I_B=100mA$ | | 0.6 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=1A, I_B=100mA$ | | 1.15 | V |
| Base-Emitter Turn On Voltage | $V_{BE(on)}$ | $I_C=1A, V_{CE}=10V$ | | 1.0 | V |
| Static Forward Current Transfer Ratio | h_{FE} | $I_C=1mA, V_{CE}=10V^*$ | 100 | | |
| | | $I_C=250mA, V_{CE}=10V^*$ | 100 | 300 | |
| | | $I_C=500mA, V_{CE}=10V^*$ | 60 | | |
| | | $I_C=1A, V_{CE}=10V^*$ | 20 | | |
| Transition Frequency | f_T | $I_C=50mA, V_{CE}=10V, f=100MHz$ | 150 | | MHz |
| Collector-Base Breakdown Voltage | C_{obo} | $V_{CB}=10V, f=1MHz$ | | 10 | pF |

* Measured under pulsed conditions. Pulse width=300 μ s. Duty cycle \leq 2%

■ Marking

| | |
|---------|-----|
| Marking | N93 |
|---------|-----|