

SOT223 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

FZT753

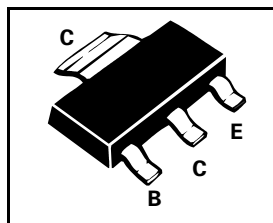
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FEATURES

- * Low saturation voltage
- * Excellent h_{FE} specified up to 2A

COMPLEMENTARY TYPE – FZT653

PARTMARKING DETAIL – FZT753



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | 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} | -6 | A |
| Continuous Collector Current | I_C | -2 | A |
| Power Dissipation at $T_{amb}=25^{\circ}C$ | P_{tot} | 2 | W |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|-----------------------|-------------------------|--------------|---------|---|
| Collector-Base Breakdown Voltage | $V_{(BR)CBO}$ | -120 | | | V | $I_C = -100\mu A$ |
| Collector-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | -100 | | | V | $I_C = -10mA^*$ |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | -5 | | | V | $I_E = -100\mu A$ |
| Collector Cut-Off Current | I_{CBO} | | | -0.1 -10 | μA | $V_{CB} = -100V$ $V_{CB} = -100V, T_{amb} = 100^{\circ}C$ |
| Emitter Cut-Off Current | I_{EBO} | | | -0.1 | μA | $V_{EB} = -4V$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | -0.17 -0.30 | -0.3 -0.5 | V | $I_C = -1A, I_B = -100mA^*$ $I_C = -2A, I_B = -200mA^*$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | | -0.9 | -1.25 | V | $I_C = -1A, I_B = -100mA^*$ |
| Base-Emitter Turn-On Voltage | $V_{BE(on)}$ | | -0.8 | -1.0 | V | $I_C = -1A, V_{CE} = -2V^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 70 100 55 25 | 200 200 170 55 | 300 | | $I_C = -50mA, V_{CE} = -2V^*$ $I_C = -500mA, V_{CE} = -2V^*$ $I_C = -1A, V_{CE} = -2V^*$ $I_C = -2A, V_{CE} = -2V^*$ |
| Transition Frequency | f_T | 100 | 140 | | MHz | $I_C = -100mA, V_{CE} = -5V$ $f = 100MHz$ |
| Output Capacitance | C_{obo} | | | 30 | pF | $V_{CB} = -10V, f = 1MHz$ |
| Switching Times | t_{on} | | 40 | | ns | $I_C = -500mA, V_{CC} = -10V$ $I_{B1} = I_{B2} = -50mA$ |
| | t_{off} | | 600 | | ns | |

*Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for this device

TYPICAL CHARACTERISTICS

