

# SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 3- FEBRUARY 1995

## FEATURES

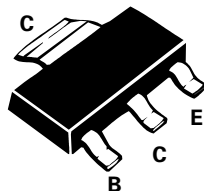
- \* Low saturation voltage

COMPLEMENTARY TYPE - FZT757

PARTMARKING DETAIL - FZT657

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

## FZT657



## ABSOLUTE MAXIMUM RATINGS.

| PARAMETER                                  | SYMBOL         | VALUE       | 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 $T_{amb}=25^{\circ}C$ | $P_{tot}$      | 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      | $V_{(BR)CBO}$ | 300      |      |      | V       | $I_C=100\mu A$                                      |
| Collector-Emitter Breakdown Voltage   | $V_{(BR)CEO}$ | 300      |      |      | 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  | $\mu A$ | $V_{CB}=200V$                                       |
| Emitter Cut-Off Current               | $I_{EBO}$     |          |      | 0.1  | $\mu A$ | $V_{EB}=3V$                                         |
| Collector-Emitter Saturation Voltage  | $V_{CE(sat)}$ |          |      | 0.5  | V       | $I_C=100mA, I_B=10mA^*$                             |
| Base-Emitter Saturation Voltage       | $V_{BE(sat)}$ |          |      | 1.0  | V       | $I_C=100mA, I_B=10mA^*$                             |
| Base-Emitter Turn-On Voltage          | $V_{BE(on)}$  |          |      | 1.0  | V       | $I_C=100mA, V_{CE}=5V^*$                            |
| Static Forward Current Transfer Ratio | $h_{FE}$      | 40<br>50 |      |      |         | $I_C=10mA, V_{CE}=5V^*$<br>$I_C=100mA, V_{CE}=5V^*$ |
| Transition Frequency                  | $f_T$         | 30       |      |      | MHz     | $I_C=10mA, V_{CE}=20V$<br>$f=20MHz$                 |
| Output Capacitance                    | $C_{obo}$     |          |      | 20   | pF      | $V_{CB}=20V, f=1MHz$                                |

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

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## TYPICAL CHARACTERISTICS

