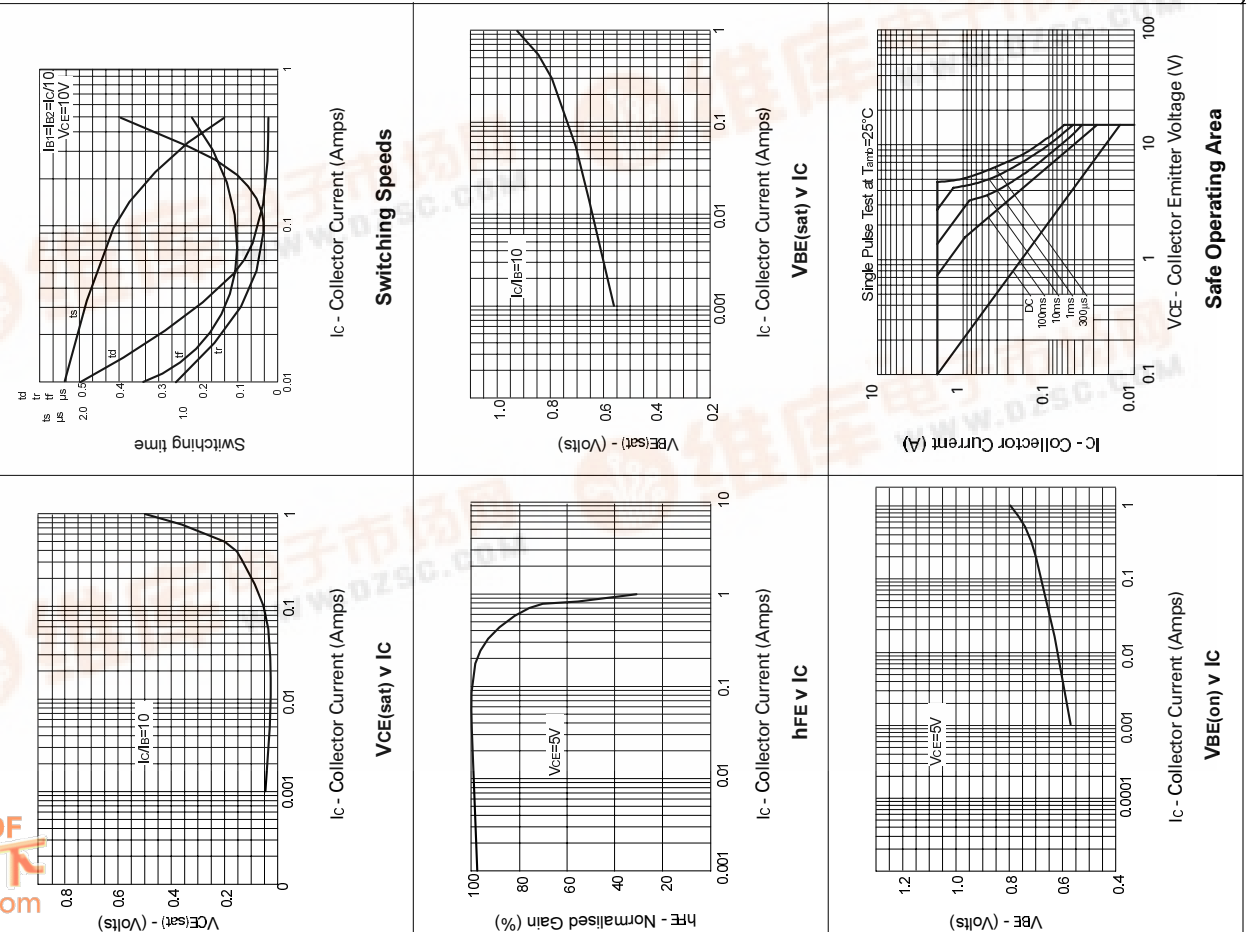


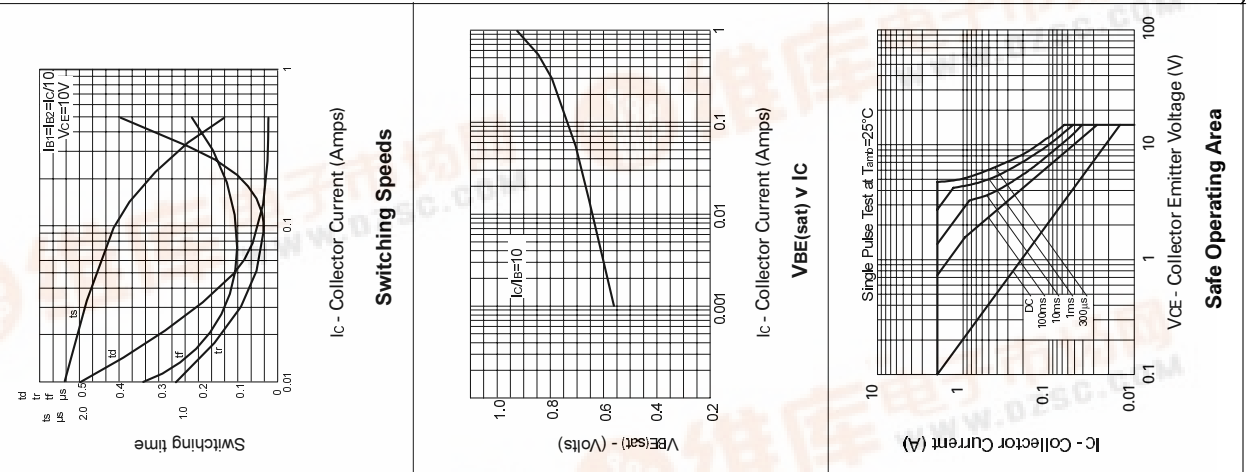


# FZT755

## TYPICAL CHARACTERISTICS



## TYPICAL CHARACTERISTICS



# SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 4 – FEBRUARY 1996

## FEATURES

- \* 25 Volt  $V_{CEO}$
- \* Low saturation voltage
- \* Excellent  $h_{FE}$  specified up to 6A (pulsed).

COMPLEMENTARY TYPE – FZT655  
PARTMARKING DETAIL – FZT755

## ABSOLUTE MAXIMUM RATINGS.

| PARAMETER                                  | SYMBOL         | VALUE       | UNIT        |
|--|----------------|-------------|-------------|
| Collector-Base Voltage                     | $V_{CBO}$      | -150        | V           |
| Collector-Emitter Voltage                  | $V_{CEO}$      | -150        | V           |
| Emitter-Base Voltage                       | $V_{EBO}$      | -5          | V           |
| Peak Pulse Current                         | $I_{CM}$       | -2          | A           |
| Continuous Collector Current               | $I_C$          | -1          | 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 | $^{\circ}C$ |

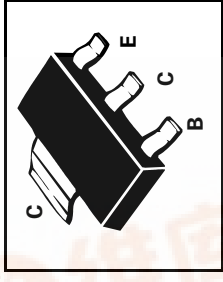
## ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

| PARAMETER                             | SYMBOL        | MIN. | TYP. | MAX. | UNIT    | CONDITIONS.  |
|---------------------------------------|---------------|------|------|------|---------|--|
| Collector-Base Breakdown Voltage      | $V_{(BR)CBO}$ | -150 |      |      | V       | $I_C = -100\mu A$  |
| Collector-Emitter Breakdown Voltage   | $V_{(BR)CEO}$ | -150 |      |      | 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 | $\mu A$ | $V_{CE} = -125V$   |
| Emitter Cut-Off Current               | $I_{EBO}$     |      |      | -0.1 | $\mu A$ | $V_{EF} = -3V$   |
| Collector-Emitter Saturation Voltage  | $V_{CE(sat)}$ |      | -0.5 |      | V       | $I_C = -500mA, I_B = -50mA^*$  |
|                                       |               |      | -0.5 |      | V       | $I_C = -1A, I_B = -200mA^*$  |
| Base-Emitter Saturation Voltage       | $V_{BE(sat)}$ |      | -1.1 |      | V       | $I_C = -500mA, I_B = -50mA^*$  |
| Base-Emitter Turn-On Voltage          | $V_{BE(on)}$  |      | -1.0 |      | V       | $I_C = -500mA, V_{CE} = -5V^*$   |
| Static Forward Current Transfer Ratio | $h_{FE}$      | 50   |      | 300  |         | $I_C = -10mA, V_{CE} = -5V^*$<br>$I_C = -500mA, V_{CE} = -5V^*$<br>$I_C = -1A, V_{CE} = -5V^*$ |
| Transition Frequency                  | $f_T$         | 30   |      |      | MHz     | $I_C = -10mA, V_{CE} = -20V, f = 20MHz$  |
| Output Capacitance                    | $C_{obo}$     |      |      | 20   | pF      | $V_{CE} = -10V, f = 1MHz$  |

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

查询FZT755供应商

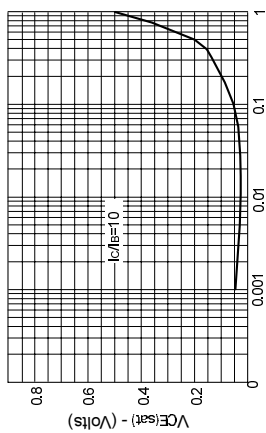
捷多邦, 专业PCB打样工厂, 24小时加急出货



# FZT755

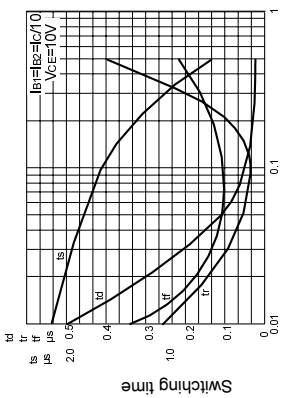
**FZT755**

**TYPICAL CHARACTERISTICS**



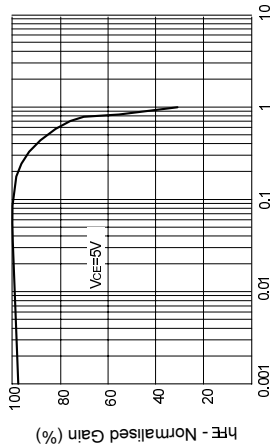
IC - Collector Current (Amps)

**VCE(sat) v IC**



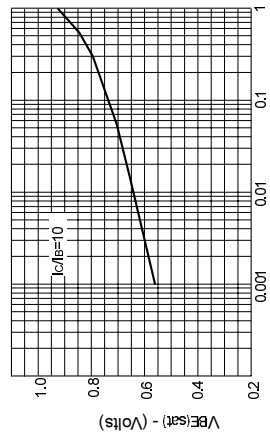
IC - Collector Current (Amps)

**Switching Speeds**



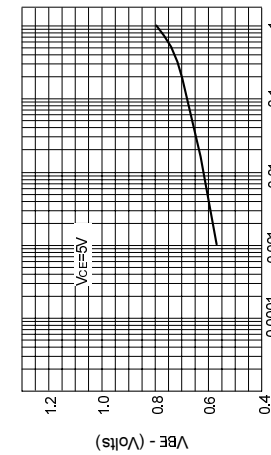
IC - Collector Current (Amps)

**hFE v IC**



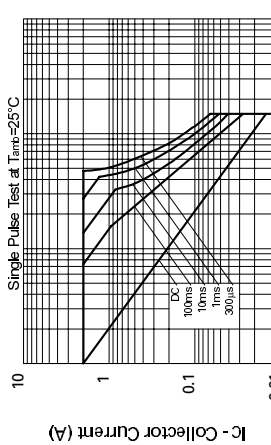
IC - Collector Current (Amps)

**VBE(sat) v IC**



IC - Collector Current (Amps)

**VBE(on) v IC**



VCE - Collector Emitter Voltage (V)

**Safe Operating Area**

**SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR**

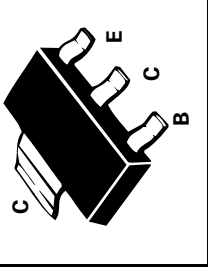
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**FZT755**

**FEATURES**

- \* 25 Volt  $V_{CE0}$
- \* Low saturation voltage
- \* Excellent  $h_{FE}$  specified up to 6A (pulsed).

COMPLEMENTARY TYPE - FZT655  
PARTMARKING DETAIL - FZT755



**ABSOLUTE MAXIMUM RATINGS.**

| PARAMETER                                       | SYMBOL         | VALUE       | UNIT             |
|---|----------------|-------------|------------------|
| Collector-Base Voltage                          | $V_{CBO}$      | -150        | V                |
| Collector-Emitter Voltage                       | $V_{CEO}$      | -150        | V                |
| Emitter-Base Voltage                            | $V_{EBO}$      | -5          | V                |
| Peak Pulse Current                              | $I_{CM}$       | -2          | A                |
| Continuous Collector Current                    | $I_C$          | -1          | 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 (at  $T_{amb} = 25^\circ\text{C}$  unless otherwise stated).**

| PARAMETER                             | SYMBOL        | MIN. | TYP. | MAX. | UNIT          | CONDITIONS.  |
|---------------------------------------|---------------|------|------|------|---------------|--|
| Collector-Base Breakdown Voltage      | $V_{(BR)CBO}$ | -150 |      |      | V             | $I_C = 100\mu\text{A}$   |
| Collector-Emitter Breakdown Voltage   | $V_{(BR)CEO}$ | -150 |      |      | V             | $I_C = 10\text{mA}^*$  |
| Emitter-Base Breakdown Voltage        | $V_{(BR)EBO}$ | -5   |      |      | V             | $I_E = 100\mu\text{A}$   |
| Collector Cut-Off Current             | $I_{CBO}$     |      |      | -0.1 | $\mu\text{A}$ | $V_{CE} = 125\text{V}$   |
| Emitter Cut-Off Current               | $I_{EBO}$     |      |      | -0.1 | $\mu\text{A}$ | $V_{EF} = 3\text{V}$   |
| Collector-Emitter Saturation Voltage  | $V_{CE(sat)}$ |      | -0.5 | -0.5 | V             | $I_C = 500\text{mA}, I_B = 50\text{mA}^*$  |
|                                       |               |      | -0.5 | -0.5 | V             | $I_C = 1\text{A}, I_B = 200\text{mA}^*$  |
| Base-Emitter Saturation Voltage       | $V_{BE(sat)}$ |      | -1.1 | -1.1 | V             | $I_C = 500\text{mA}, I_B = 50\text{mA}^*$  |
| Base-Emitter Turn-On Voltage          | $V_{BE(on)}$  |      |      | -1.0 | V             | $I_C = 500\text{mA}, V_{CE} = 5\text{V}^*$   |
| Static Forward Current Transfer Ratio | $h_{FE}$      | 50   | 50   | 300  |               | $I_C = 10\text{mA}, V_{CE} = 5\text{V}^*$<br>$I_C = 500\text{mA}, V_{CE} = 5\text{V}^*$<br>$I_C = 1\text{A}, V_{CE} = 5\text{V}^*$ |
| Transition Frequency                  | $f_T$         | 30   |      |      | MHz           | $I_C = 10\text{mA}, V_{CE} = 20\text{V}$<br>$f = 20\text{MHz}$   |
| Output Capacitance                    | $C_{obo}$     |      |      | 20   | pF            | $V_{CE} = 10\text{V}, f = 1\text{MHz}$   |

\*Measured under pulsed conditions. Pulse Width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$