

# SOT223 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

## FZT751

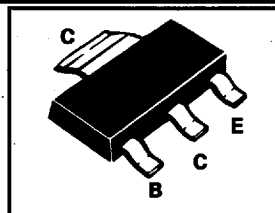
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### FEATURES

- \* 60 Volt  $V_{CE0}$
- \* 3 Amp continuous current
- \* Low saturation voltage

COMPLEMENTARY TYPE - FZT651

PARTMARKING DETAIL - FZT751



### ABSOLUTE MAXIMUM RATINGS.

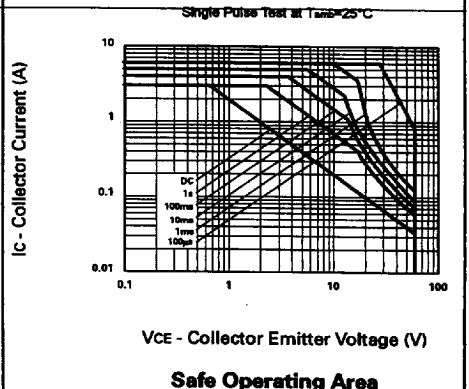
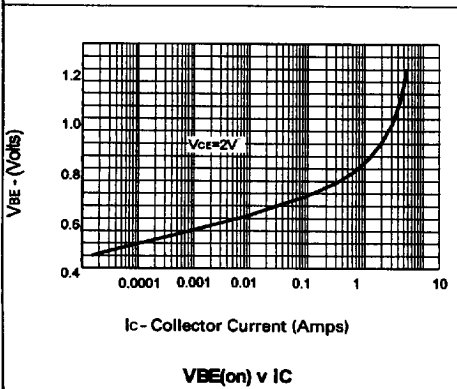
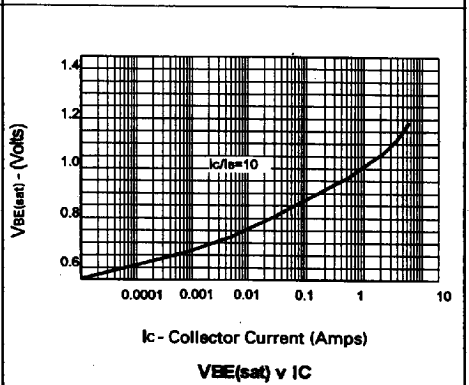
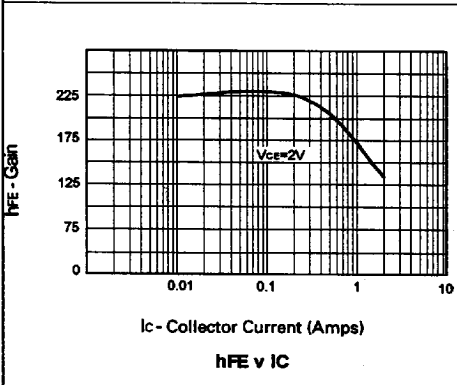
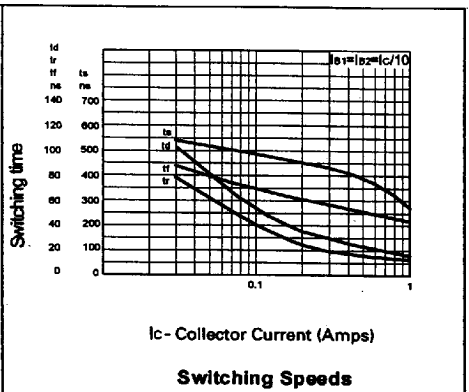
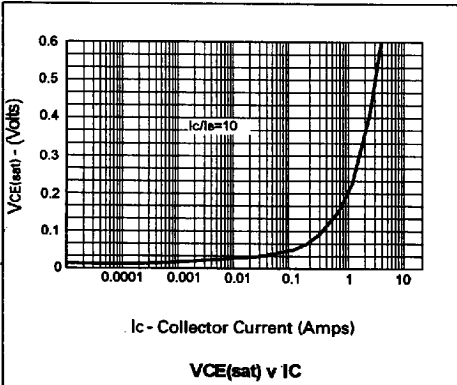
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-6	A
Continuous Collector Current	$I_C$	-3	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	2	W
Operating and Storage 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	$V_{(BR)CBO}$	-80			V	$I_C = -100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			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 -10	$\mu\text{A}$	$V_{CB} = -60\text{V}$ $V_{CE} = -60\text{V}, T_{amb} = 100^\circ\text{C}$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu\text{A}$	$V_{EB} = -4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.15 -0.45	0.3 0.6	V	$I_C = -1\text{A}, I_B = -100\text{mA}^*$ $I_C = -3\text{A}, I_B = -300\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	-1.25	V	$I_C = -1\text{A}, I_B = -100\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.8	-1.0	V	$I_C = -1\text{A}, V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	70 100 80 40	200 200 170 150	300		$I_C = -50\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -1\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}, V_{CE} = -2\text{V}^*$
Transition Frequency	$f_T$	100	140		MHz	$I_C = -100\text{mA}, V_{CE} = -5\text{V}$ $f = 100\text{MHz}$
Switching Times	$t_{on}$		40		ns	$I_C = -500\text{mA}, V_{CC} = -10\text{V}$ $I_{B1} = I_{B2} = -50\text{mA}$
	$t_{off}$		450		ns	
Output Capacitance	$C_{obo}$			30	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

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

## TYPICAL CHARACTERISTICS



9970578 0009402 689