

# SOT223 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

**FZT751**

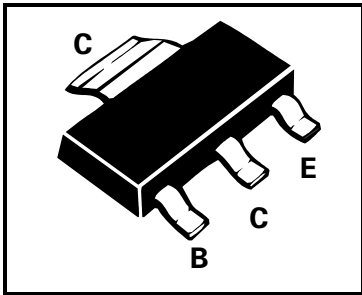
ISSUE 2 – FEBRUARY 1995

## FEATURES

- \* 60 Volt  $V_{CEO}$
- \* 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 $T_{amb}=25^{\circ}C$	$P_{tot}$	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	$V_{(BR)CBO}$	-80			V	$I_C=-100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			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	$\mu A$ $\mu A$	$V_{CB}=-60V$ $V_{CB}=-60V, T_{amb}=100^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu A$	$V_{EB}=-4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.15 -0.45	0.3 0.6	V V	$I_C=-1A, I_B=-100mA^*$ $I_C=-3A, I_B=-300mA^*$
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 80 40	200 200 170 150	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	$I_C=-100mA, V_{CE}=-5V$ $f=100MHz$
Switching Times	$t_{on}$		40		ns	$I_C=-500mA, V_{CC}=-10V$ $I_{B1}=I_{B2}=-50mA$
	$t_{off}$		450		ns	
Output Capacitance	$C_{obo}$			30	pF	$V_{CB}=-10V, f=1MHz$

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

# FZT751

## TYPICAL CHARACTERISTICS

