

# SOT223 PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

## FZT796A

ISSUE 3 - OCTOBER 1995

### FEATURES

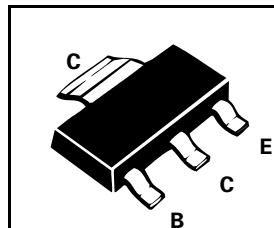
- \* 200 Volt  $V_{CEO}$
- \* Gain of 250 at  $I_C=0.3$  Amps
- \* Very low saturation voltage

### APPLICATIONS

- \* Battery powered circuits

COMPLEMENTARY TYPE - FZT696B

PARTMARKING DETAIL - FZT796A



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-200	V
Collector-Emitter Voltage	$V_{CEO}$	-200	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 $T_{amb} = 25^{\circ}C$ )

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage Collector-Base	$V_{(BR)CBO}$	-200			V	$I_C=-100\mu A$
Collector-Emitter	$V_{(BR)CEO}$	-200			V	$I_C=-10mA^*$
Emitter-Base	$V_{(BR)EBO}$	-5			V	$I_E=-100\mu A$
Collector Cut-Off Current	$I_{CBO}$			-0.1	$\mu A$	$V_{CB}=-150V$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu A$	$V_{EB}=-4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.2 -0.3 -0.3	V	$I_C=-50mA, I_B=-2mA^*$ $I_C=-100mA, I_B=-5mA^*$ $I_C=-200mA, I_B=-20mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-0.95	V	$I_C=-200mA, I_B=-20mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.67		V	$I_C=-200mA, V_{CE}=-10V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	300 300 250 100		800		$I_C=-10mA, V_{CE}=-10V^*$ $I_C=-100mA, V_{CE}=-10V^*$ $I_C=-300mA, V_{CE}=-10V^*$ $I_C=-400mA, V_{CE}=-10V^*$
Transition Frequency	$f_T$	100			MHz	$I_C=-50mA, V_{CE}=-5V$ $f=50MHz$
Input Capacitance	$C_{ibo}$		225		pF	$V_{EB}=-0.5V, f=1MHz$
Output Capacitance	$C_{obo}$		12		pF	$V_{CB}=-10V, f=1MHz$
Switching Times	$t_{on}$ $t_{off}$		100 3200		ns ns	$I_C=-100mA, I_{B1}=-10mA$ $I_{B2}=-10mA, V_{CC}=-50V$

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

Spice parameter data is available upon request for this device

# FZT796A

## TYPICAL CHARACTERISTICS

