

SOT223 PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

FZT796A

ISSUE 3 - OCTOBER 1995

FEATURES

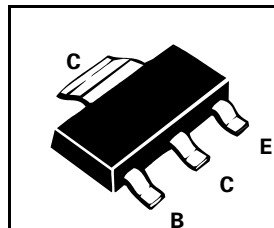
- * 200 Volt V_{CEO}
- * Gain of 250 at $I_C=0.3$ Amps
- * Very low saturation voltage

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 $T_{amb}=25^\circ\text{C}$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$)

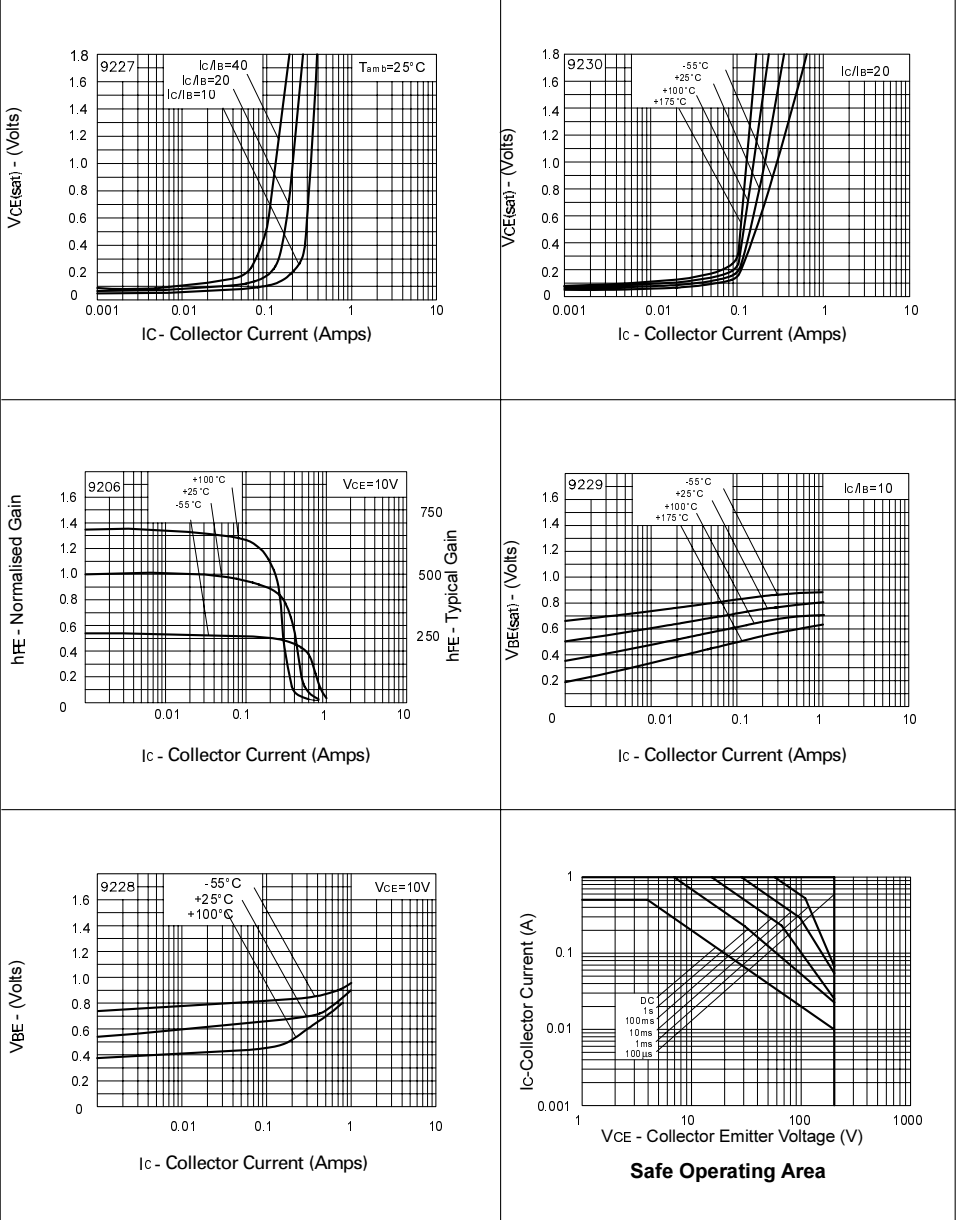
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage Collector-Base	$V_{(BR)CBO}$	-200			V	$I_C=-100\mu\text{A}$
Collector-Emitter	$V_{(BR)CEO}$	-200			V	$I_C=-10\text{mA}^*$
Emitter-Base	$V_{(BR)EBO}$	-5			V	$I_E=-100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			-0.1	μA	$V_{CB}=-150\text{V}$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

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

Spice parameter data is available upon request for this device

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TYPICAL CHARACTERISTICS





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