SOT223 PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

FZT796A

ISSUE 3 - OCTOBER 1995

FEATURES

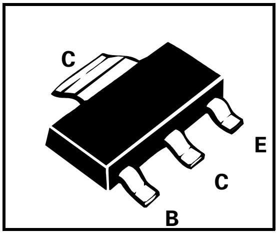
- 200 Volt V_{CEO}
- Gain of 250 at I_C=0.3 Amps
- Very low saturation voltage

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°C	P_{tot}	2	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

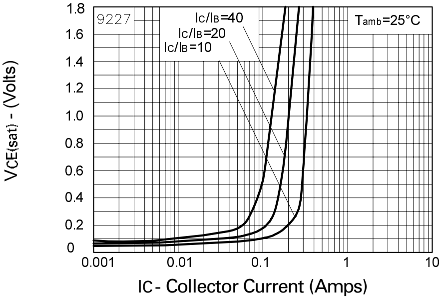
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C)

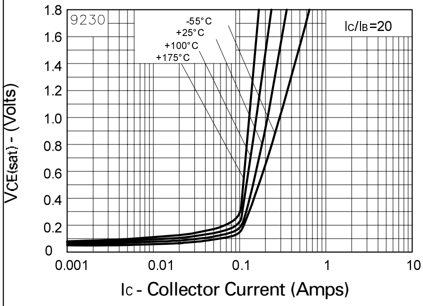
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltage Collector-Base	$V_{(BR)CBO}$	-200			V	I_C=-100μA
Collector-Emitter	$V_{(BR)CEO}$	-200			V	I_C=-10mA*
Emitter-Base	$V_{(BR)EBO}$	-5			V	I_E=-100μA
Collector Cut-Off Current	I_{CBO}			-0.1	μA	V_{CB}=-150V
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	V_{EB}=-4V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.2 -0.3 -0.3	V V V	I_C=-50mA, I_B=-2mA* I_C=-100mA, I_B=-5mA* I_C=-200mA, I_B=-20mA*
Base-EmitterSaturationVoltage	$V_{BE(sat)}$			-0.95	V	I_C=-200mA,I_B=-20mA*
Base-EmitterTurn-OnVoltage	$V_{BE(on)}$		-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

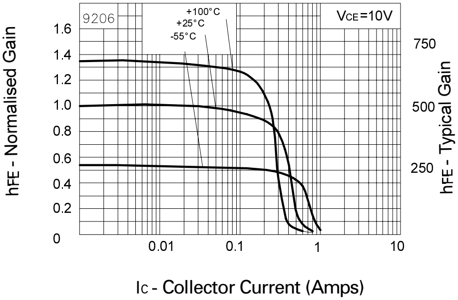
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

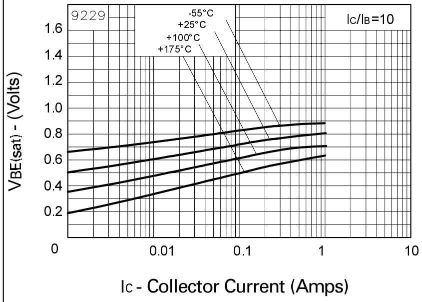
Spice parameter data is available upon request for this device

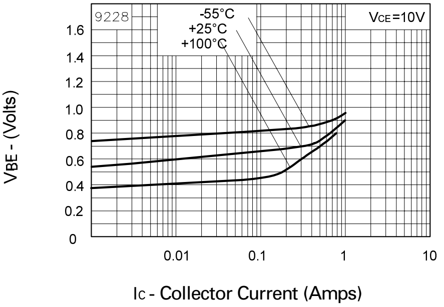
TYPICAL CHARACTERISTICS

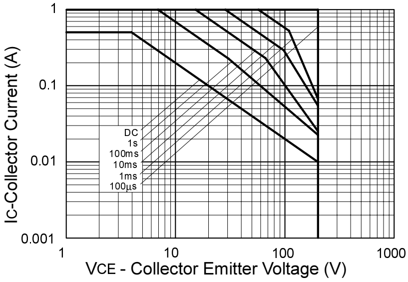












Safe Operating Area