SOT223 PNP SILICON PLANAR HIGH GAIN MEDIUM POWER TRANSISTOR

FZT792A

ISSUE 3 - NOVEMBER 1995

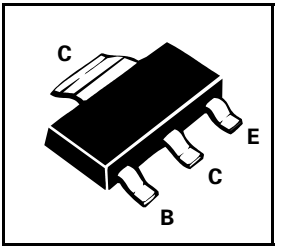
FEATURES

* High gain and Very low saturation voltage

APPLICATIONS

* Battery powered circuits

COMPLEMENTARY TYPE - FZT692B
PARTMARKING DETAIL - FZT792A



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-75	V
Collector-Emitter Voltage	V_{CEO}	-70	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-5	A
Continuous Collector Current	I_C	-2	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 Voltages	$V_{(BR)CBO}$	-75	-100		V	I_C=-100μA
	$V_{(BR)CEO}$	-70	-90		V	I_C=-10mA*
	$V_{(BR)EBO}$	-5	-8.5		V	I_E=-100μA
Cut-Off Currents	I_{CBO}			-0.1 -10	μA μA	V_{CB}=-40V V_{CB}=-40V, T_{amb}=100°C
	I_{EBO}			-0.1	μA	V_{EB}=-4V
Saturation Voltages	$V_{CE(sat)}$		-0.30 -0.30 -0.30	-0.45 -0.50 -0.50	V V V	I_C=-500mA, I_B=-5mA* I_C=-1A, I_B=-25mA* I_C=-2A, I_B=-200mA*
	$V_{BE(sat)}$		-0.80	-0.95	V	I_C=-1A, I_B=-25mA*

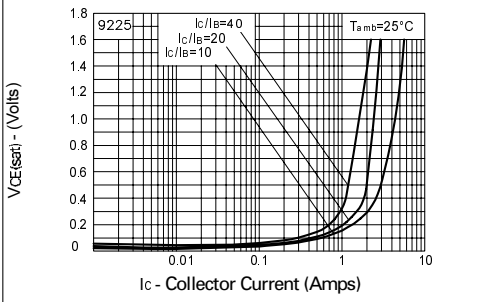
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.75		V	I_C=-1A, V_{CE}=-2V*
Static Forward Current Transfer	h_{FE}	300 250 200		800		I_C=-10mA, V_{CE}=-2V* I_C=-500mA, V_{CE}=-2V* I_C=-1A, V_{CE}=-2V*
Transition Frequency	f_T	100	160		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}		22		pF	V_{CB}=-10V, f=1MHz
Switching Times	t_{on} t_{off}		35 750		ns ns	I_C=-500mA, I_{B1}=-50mA, I_{B2}=-50mA, V_{CC}=-10V

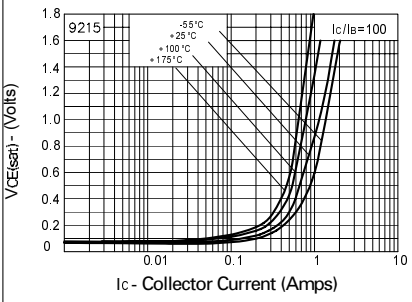
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%
Spice parameter data is available upon request for this device

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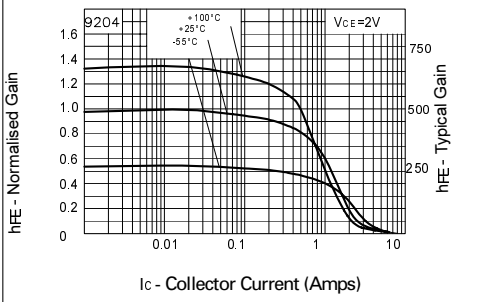
TYPICAL CHARACTERISTICS



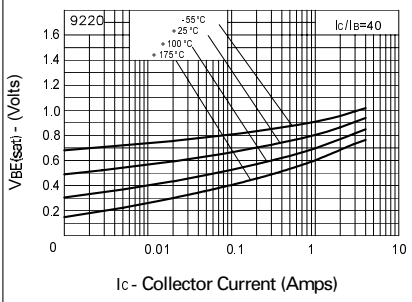
VCE(sat) v IC



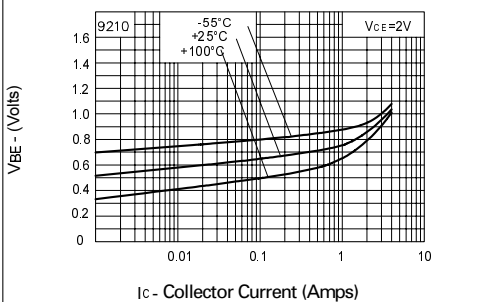
VCE(sat) v IC



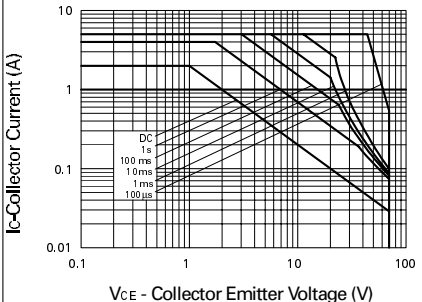
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area