

SOT223 PNP SILICON PLANAR HIGH GAIN MEDIUM POWER TRANSISTOR

ISSUE 3 - NOVEMBER 1995

FEATURES

- * High gain and Very low saturation voltage

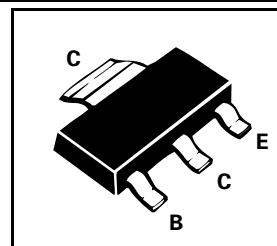
APPLICATIONS

- * Battery powered circuits

COMPLEMENTARY TYPE - FZT692B

PARTMARKING DETAIL - FZT792A

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

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

PARAMETER	SYMBOL	MIN.	Typ.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-75	-100		V	$I_C=-100\mu\text{A}$
	$V_{(BR)CEO}$	-70	-90		V	$I_C=-10\text{mA}^*$
	$V_{(BR)EBO}$	-5	-8.5		V	$I_E=-100\mu\text{A}$
Cut-Off Currents	I_{CBO}			-0.1 -10	μA μA	$V_{CB}=-40\text{V}$ $V_{CB}=-40\text{V},$ $T_{amb}=100^\circ\text{C}$
	I_{EBO}			-0.1	μA	$V_{EB}=-4\text{V}$
Saturation Voltages	$V_{CE(sat)}$		-0.30 -0.30 -0.30	-0.45 -0.50 -0.50	V V V	$I_C=-500\text{mA}, I_B=-5\text{mA}^*$ $I_C=-1\text{A}, I_B=-25\text{mA}^*$ $I_C=-2\text{A}, I_B=-200\text{mA}^*$
	$V_{BE(sat)}$		-0.80	-0.95	V	$I_C=-1\text{A}, I_B=-25\text{mA}^*$

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

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

FZT792A

TYPICAL CHARACTERISTICS

