

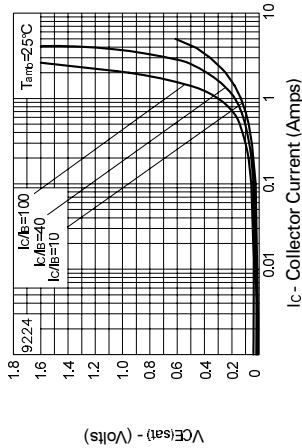
FZT790A

SOT223 PNP SILICON PLANAR MEDIUM
POWER HIGH GAIN TRANSISTOR

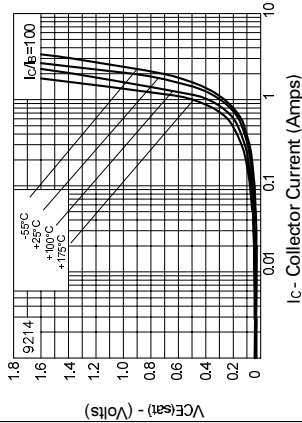
ISSUE 3 - OCTOBER 1995

FZT790A

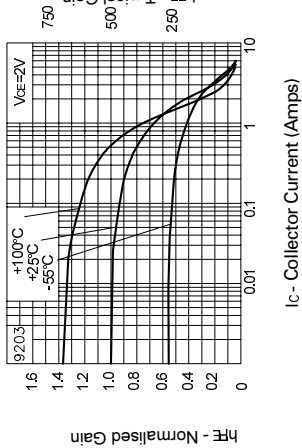
TYPICAL CHARACTERISTICS



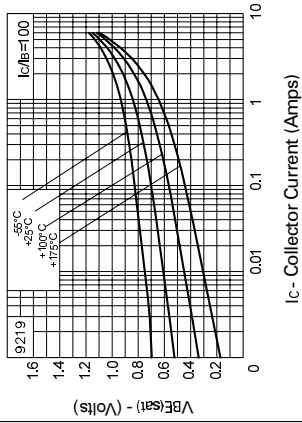
VCE(sat) v IC



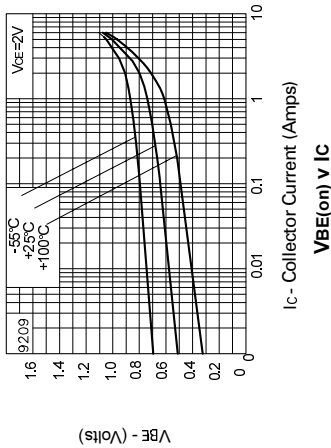
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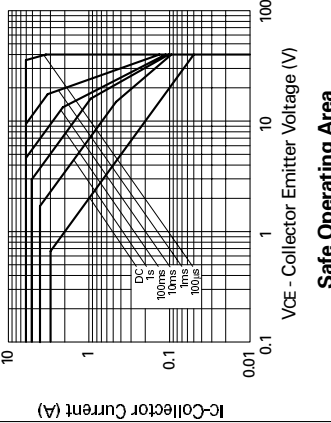
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area

FEATURES

- * Very low equivalent on-resistance; $R_{CE(sat)}$ 125mΩ at 2A
- * Gain of 200 at $I_C=1$ Amp and very low saturation voltage

APPLICATIONS

- * DC-DC converters, Siren drivers.

COMPLEMENTARY TYPE - FZT690B

PARTMARKING DETAIL - FZT790A

ABSOLUTE MAXIMUM RATINGS.

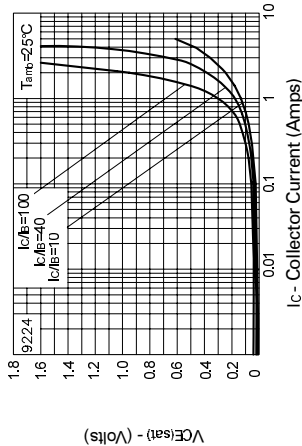
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-6	A
Continuous Collector Current	I_C	-3	A
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

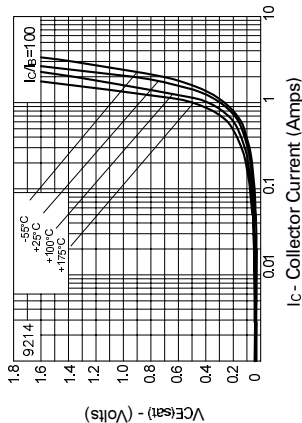
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-50	-70		V	$I_C=-100\mu A$
	$V_{(BR)CEO}$	-40	-60		V	$I_C=-10mA^*$
	$V_{(BR)EBO}$	-5	-8.5		V	$I_E=-100\mu A$
Collector Cut-Off Current	I_{CBO}			-0.1 -10	μA	$V_{CB}=-30V, T_{amb}=100^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB}=-4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.15 -0.30 -0.40	-0.25 -0.45 -0.75	V	$I_C=-500mA, I_B=-5mA^*$ $I_C=-1A, I_B=-10mA^*$ $I_C=-2A, I_B=-50mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.8	-1.0	V	$I_C=-1A, I_B=-10mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.75		V	$I_C=-1A, V_{CE}=-2V^*$
Static Forward Current Transfer Ratio	h_{FE}	300 250 200 150		800		$I_C=-10mA, V_{CE}=-2V$ $I_C=-500mA, V_{CE}=-2V^*$ $I_C=-1A, V_{CE}=-2V^*$ $I_C=-2A, V_{CE}=-2V^*$
Transition Frequency	f_T	100			MHz	$I_C=-50mA, V_{CE}=-5V$ $f=50MHz$
Output Capacitance	C_{obo}		24		pF	$V_{CB}=-10V, f=1MHz$
Switching Times	t_{on} t_{off}		35 600		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

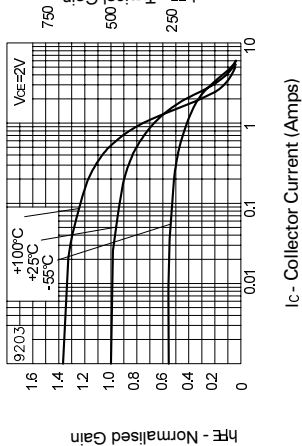
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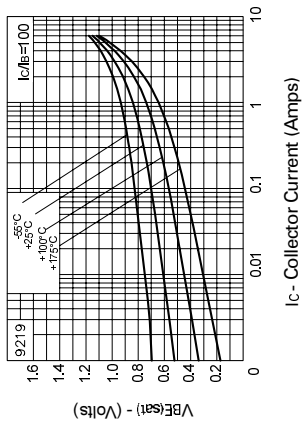
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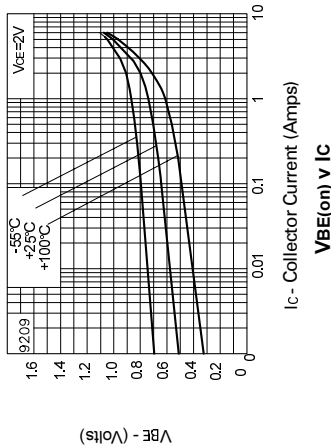
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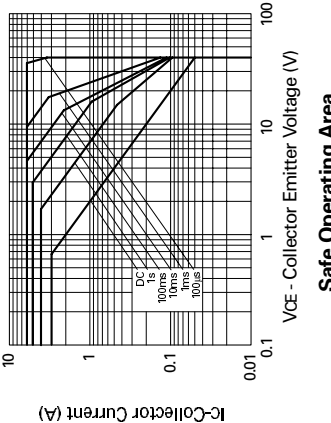
hFE v IC



VBE(sat) v IC



VBE(on) v IC



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