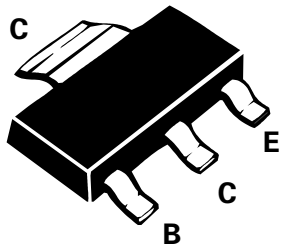
SOT223 PNP SILICON PLANAR HIGH VOLTAGE TRANSISTOR

FZT560

ISSUE 1– NOVEMBER 1998

FEATURES

* 500 Volt V_{CEO}
* 150mA continuous current
* P_{tot} = 2 Watt



PARTMARKING DETAIL – FZT560

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-500	V
Collector-Emitter Voltage	V_{CEO}	-500	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-500	mA
Continuous Collector Current	I_C	-150	mA
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 unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-500		V	I_C=-100µA
Collector-Emitter Breakdown Voltage	$V_{CEO(SUS)}$	-500		V	I_C=-10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	I_E=-100µA
Collector Cut-Off Current	I_{CBO}		-100	nA	V_{CB}=-500V
Collector Cut-Off Current	I_{CES}		-100	nA	V_{CE}=-500V
Emitter Cut-Off Current	I_{EBO}		-100	nA	V_{EB}=-5V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.20 -0.5	V V	I_C=-20mA, I_B=-2mA I_C=-50mA, I_B=-10mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	V	I_C=-50mA, I_B=-10mA*
Base-Emitter Turn On Voltage	$V_{BE(on)}$		-0.9	V	I_C=-50mA, V_{CE}=-10V*
Static Forward Current Transfer Ratio	h_{FE}	100 80 15 typ	300 300		I_C=-1mA, V_{CE}=-10V I_C=-50mA, V_{CE}=-10V* I_C=-100mA, V_{CE}=-10V*
Transition Frequency	f_T	60		MHz	I_C=-10mA, V_{CE}=-20V f=50MHz
Output Capacitance	C_{obo}		8	pF	V_{CB}=-20, f=1MHz
Switching times	t_{on} t_{off}	110 typ. 1.5 typ		ns µs	V_{CE}=-100, I_C=-50mA, I_{B1}=-5mA,I_{B2}=10mA,

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

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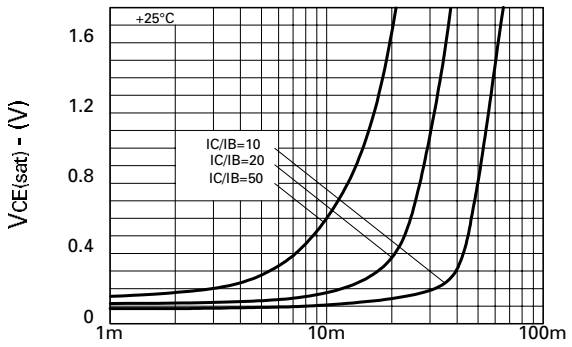
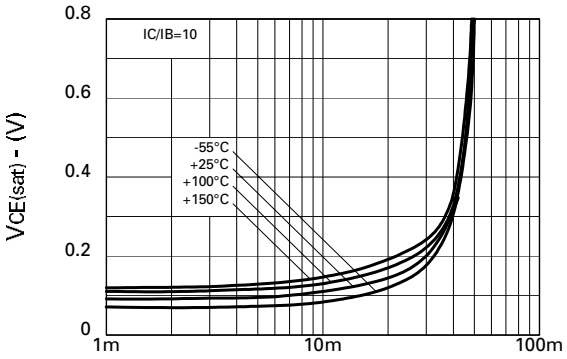
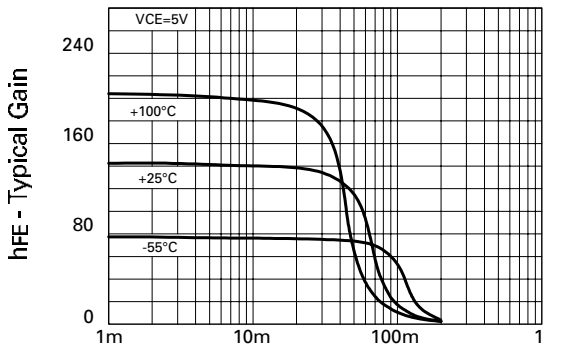
TYPICAL CHARACTERISTICS



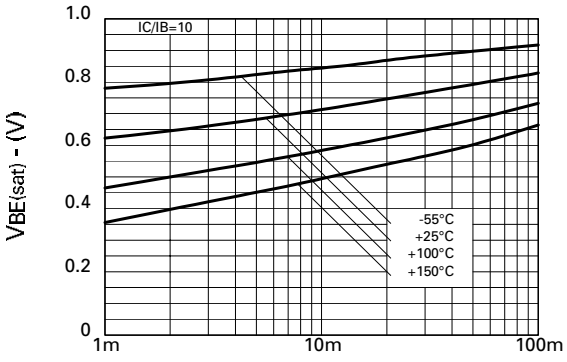
VCE(sat) v IC



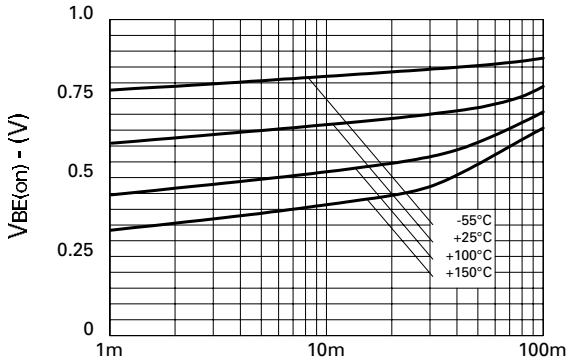
VCE(sat) v IC



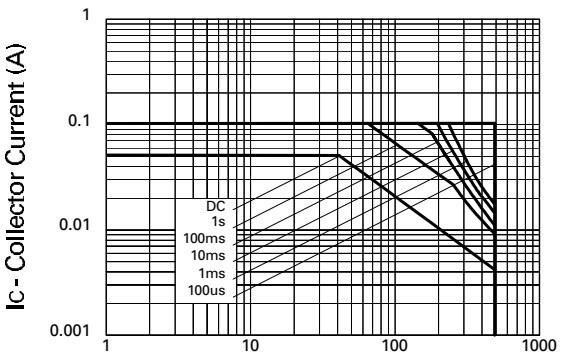
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area