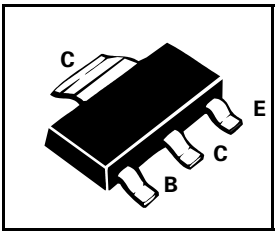
SOT223 NPN SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

FZT692B

ISSUE 3 - OCTOBER 1995



FEATURES

* High Gain + Very low saturation voltage

APPLICATIONS

* Darlington replacement
* Relay drivers, DC-DC converters

PARTMARKING DETAIL - FZT692B

ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	70	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)

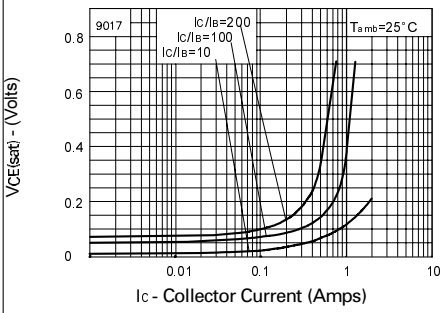
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS.
BreakdownVoltages	$V_{(BR)CBO}$	70			V	I_C=100μA
	$V_{(BR)CEO}$	70			V	I_C=10mA*
	$V_{(BR)EBO}$	5			V	I_E=100μA
Cut-Off Currents	I_{CBO}			0.1	μA	V_{CB}=55V
	I_{EBO}			0.1	μA	V_{EB}=4V
Saturation Voltages	$V_{CE(sat)}$			0.15 0.5 0.5	V V V	I_C=0.1A, I_B=0.5mA* I_C=1A, I_B=10mA* I_C=2A, I_B=200mA*
	$V_{BE(sat)}$			0.9	V	I_C=1A, I_B=10mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			0.9	V	I_C=1A, V_{CE}=2V*
Static Forward Current Transfer Ratio	h_{FE}	500 400 150				I_C=100mA,V_{CE}=2V* I_C=500mA, V_{CE} =2V* I_C=1A,V_{CE}=2V*
Transition Frequency	f_T	150			MHz	I_C=50mA, V_{CE}=5V, f=50MHz
Input Capacitance	C_{ibo}		200		pF	V_{EB}=0.5V, f=1MHz
Output Capacitance	C_{obo}		12		pF	V_{CB}=10V, f=1MHz
Switching Times	t_{on} t_{off}		46 1440		ns ns	I_C=500mA, I_{B1}=50mA I_{B2}=50mA, V_{CC}=10V

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

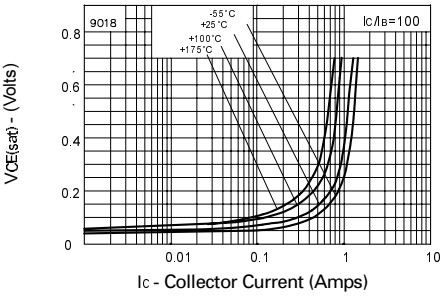
Spice parameter data is available upon request for this device

FZT692B

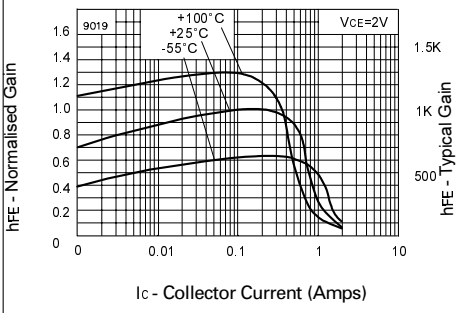
TYPICAL CHARACTERISTICS



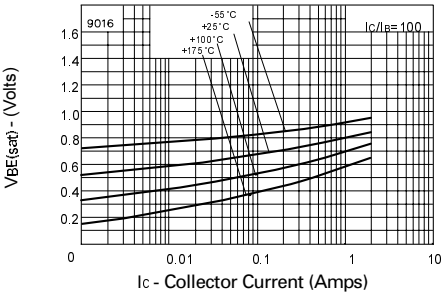
VCE(sat) v IC



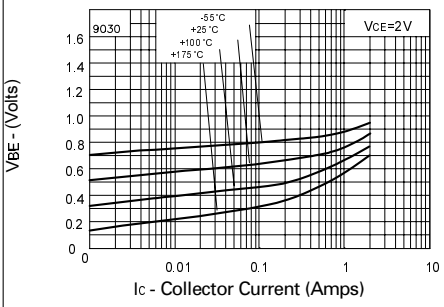
VCE(sat) v IC



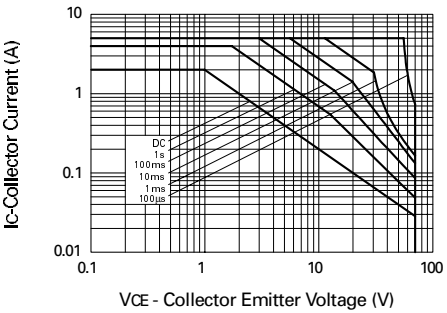
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area