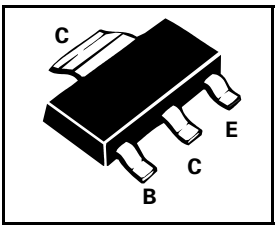
SOT223 NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FZT755

ISSUE 4 – FEBRUARY 1996 ✪

FEATURES

* 25 Volt V_{CEO}
* Low saturation voltage
* Excellent h_{FE} specified up to 6A (pulsed).



COMPLEMENTARY TYPE – FZT655
PARTMARKING DETAIL – FZT755

ABSOLUTE MAXIMUM RATINGS.

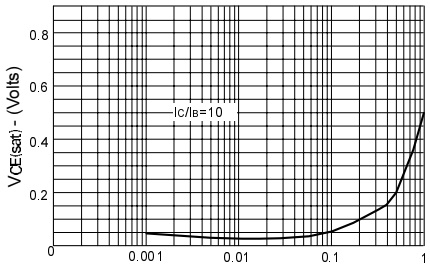
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-150	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-2	A
Continuous Collector Current	I_C	-1	A
Power Dissipation at T_{amb}=25°C	P_{tot}	2	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-150			V	I_C=-100μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-150			V	I_C=-10mA*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I_E=-100μA
Collector Cut-Off Current	I_{CBO}			-0.1	μA	V_{CB}=-125V
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	V_{EB}=-3V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.5 -0.5	V V	I_C=-500mA, I_B=-50mA* I_C=-1A, I_B=-200mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.1	V	I_C=-500mA, I_B=-50mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.0	V	I_C=-500mA, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	50 50 20		300		I_C=-10mA, V_{CE}=-5V* I_C=-500mA, V_{CE}=-5V* I_C=-1A, V_{CE}=-5V*
Transition Frequency	f_T	30			MHz	I_C=-10mA, V_{CE}=-20V f=20MHz
Output Capacitance	C_{obo}			20	pF	V_{CB}=-10V f=1MHz

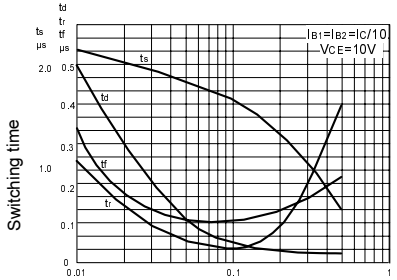
*Measured under pulsed conditions. Pulse Width=300μs. Duty cycle ≤2%

TYPICAL CHARACTERISTICS



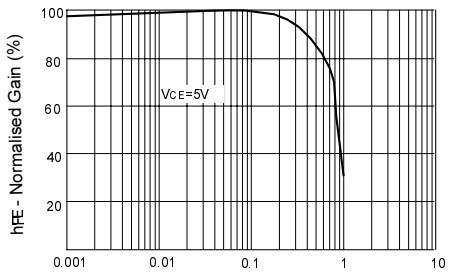
IC - Collector Current (Amps)

VCE(sat) v IC



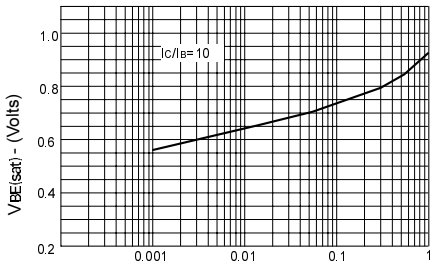
IC - Collector Current (Amps)

Switching Speeds



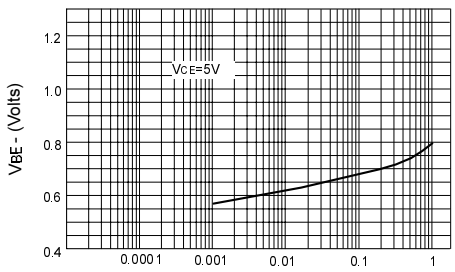
IC - Collector Current (Amps)

hFE v IC



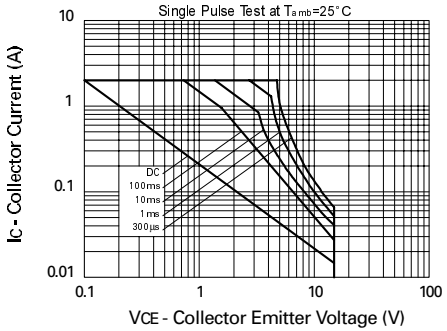
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC



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