SOT223 PNP SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

FZT705

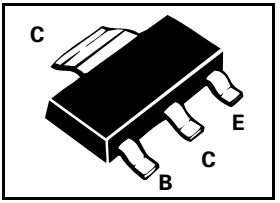
ISSUE 2 - OCTOBER 1995

FEATURES

* 2A CONTINUOUS CURRENT
* FAST SWITCHING
* GUARANTEED HFE SPECIFIED UP TO 2A

COMPLEMENTARY TYPE – FZT 605

PART MARKING DETAIL – FZT705



ABSOLUTE MAXIMUM RATINGS.

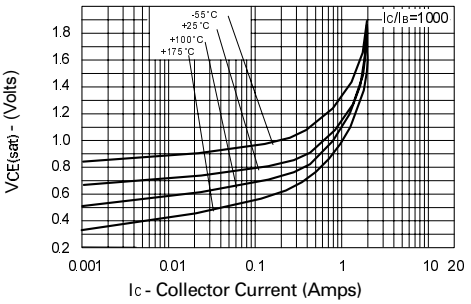
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-140	V
Collector-Emitter Voltage	V_{CEO}	-120	V
Emitter-Base Voltage	V_{EBO}	-10	V
Peak Pulse Current	I_{CM}	-4	A
Continuous Collector Current	I_C	-2	A
Power Dissipation	P_{TOT}	2	W
Operating and Storage Temperature Range	tj:tstg	-55 to +150	°C

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

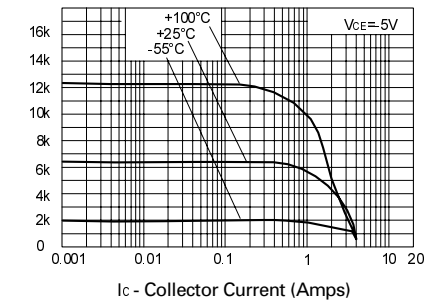
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Breakdown Voltages	$V_{(BR)CBO}$	-140			V	I_C=-100mA
	$V_{(BR)CEO}$	-120			V	I_C=-10mA*
	$V_{(BR)EBO}$	-10			V	I_E=-100μA
Collector Cut-Off Current	I_{CBO}			-0.1 -10	μA μA	V_{CB}=-120V V_{CB}=-120V, T_{amb}=100°C
	I_{CES}			-10	μA	V_{CES}=-80V
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	V_{EB}=-8V
SaturationVoltages	$V_{CE(sat)}$			-1.3 -2.5	V V	I_C=-1A, I_B=-1mA I_C=-2A, I_B=-2mA
	$V_{BE(sat)}$			-1.8	V	I_C=-1A, I_B=-10mA
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			-1.7	V	I_C=-1A, V_{CE}=-5V
Static Forward Current Transfer	h_{FE}	3000 3000 3000 2000		 30000		I_C=-10mA, V_{CE}=-5V I_C=-100mA, V_{CE}=-5V I_C=-1A, V_{CE}=-5V I_C=-2A, V_{CE}=-5V
Transitional Frequency	f_T		160		MHz	I_C=-100mA, V_{CE}=-10V f=20MHz
Output Capacitance	C_{obo}		15		pF	V_{EB}=-10V, f=1MHz
Switching Times	T_{on}		0.6		μs	I_C=-0.5A, V_{CE}=-10V I_{B1}=I_{B2}=0.5mA
	T_{off}		0.8		μs	

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%
Spice parameter data is available upon request for this device

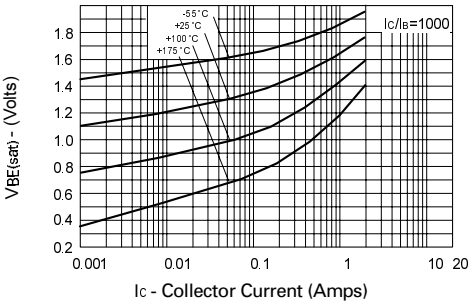
TYPICAL CHARACTERISTICS



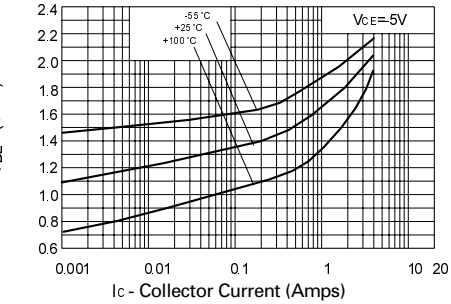
VCE(sat) v IC



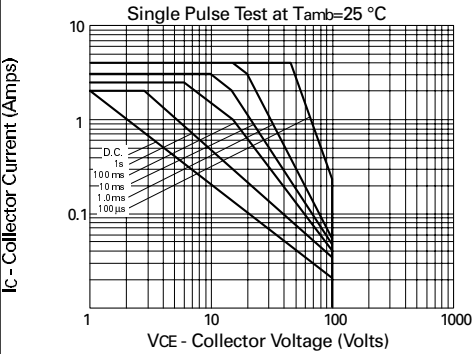
hFE v IC



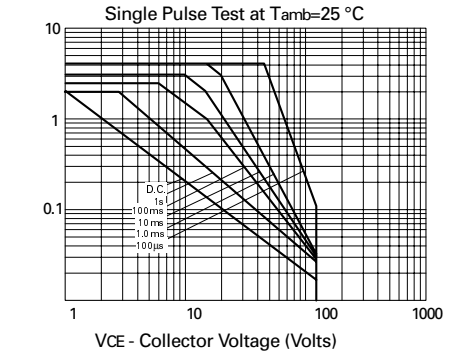
VBE(sat) v IC



VBE(on) v IC



Safe Operating Area FZT704



Safe Operating Area FZT705

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.