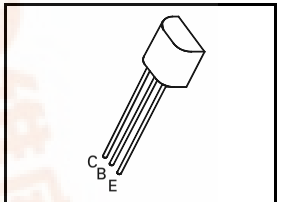
PNP SILICON PLANAR
MEDIUM POWER TRANSISTORS

ISSUE 2 – JULY 94

ZTX754
ZTX755

FEATURES

* 150 Volt V_{CEO}
* 1 Amp continuous current
* Low saturation voltage
* P_{tot}= 1 Watt



E-Line
TO92 Compatible

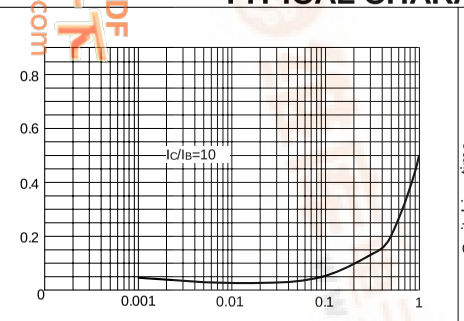
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	ZTX754	ZTX755	UNIT
Collector-Base Voltage	V_{CBO}	-125	-150	V
Collector-Emitter Voltage	V_{CEO}	-125	-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}	1		W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +200		°C

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

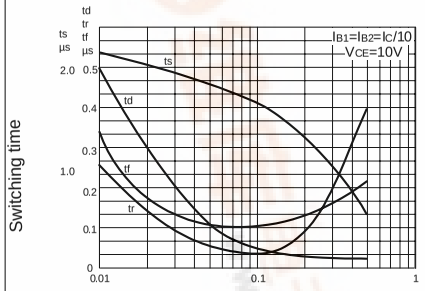
PARAMETER	SYMBOL	ZTX754		ZTX755		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-125		-150		V	I_C=-100µA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-125		-150		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	I_E=-100µA, I_C=0
Collector Cut-Off Current	I_{CBO}		-100		-100	nA	V_{CB}=-100V, I_E=0
						nA	V_{CB}=-125V, I_E=0
Emitter Cut-Off Current	I_{EBO}		-100		-100	nA	V_{EB}=-3V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.5		-0.5	V	I_C=-500mA, I_B=-50mA*
			-0.5		-0.5	V	I_C=-1A, I_B=-200mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.1		-1.1	V	I_C=-500mA, I_B=-50mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.0		-1.0	V	IC=-500mA, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	50		50			I_C=-10mA, V_{CE}=-5V
		50		50			I_C=-500mA, V_{CE}=-5V*
		20		20			I_C=-1A, V_{CE}=-5V*
Transition Frequency	f_T	30		30		MHz	I_C=-10mA, V_{CE}=-20V f=20MHz
Output Capacitance	C_{obo}		20		20	pF	V_{CB}=-20V, f=1MHz

TYPICAL CHARACTERISTICS



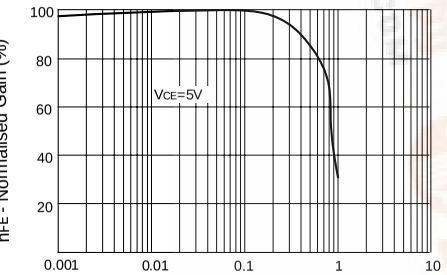
IC - Collector Current (Amps)

VCE(sat) v IC



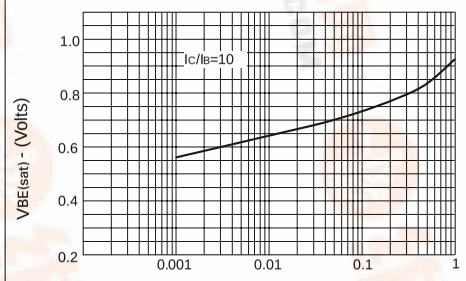
IC - Collector Current (Amps)

Switching Speeds



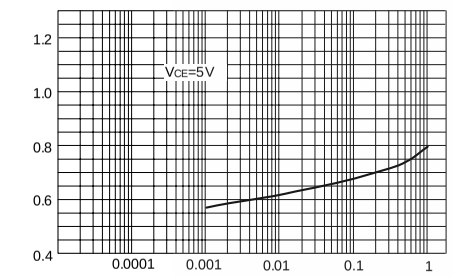
IC - Collector Current (Amps)

hFE v IC



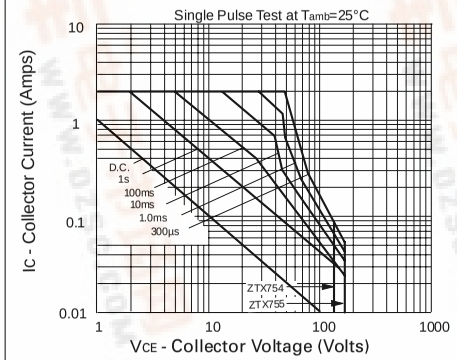
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC



Safe Operating Area

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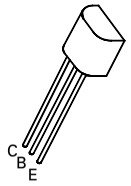

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Continuous Collector Current	I_C	-1		A
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PARAMETER	SYMBOL	ZTX754		ZTX755		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
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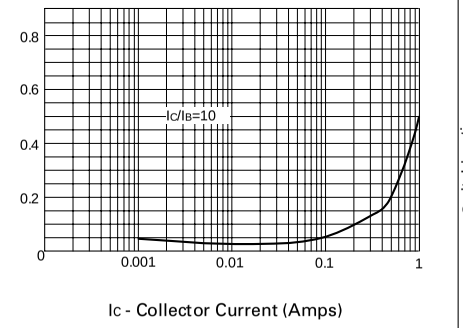
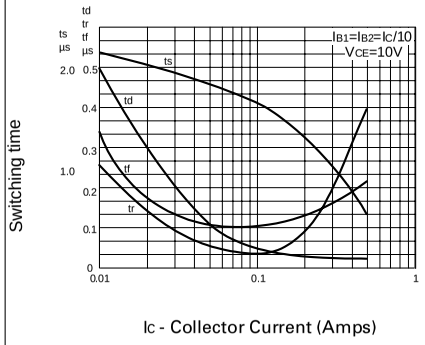
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-125		-150		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	I_E=-100µA, I_C=0
Collector Cut-Off Current	I_{CBO}		-100		 -100	nA nA	V_{CB}=-100V, I_E=0 V_{CB}=-125V, I_E=0
Emitter Cut-Off Current	I_{EBO}		-100		-100	nA	V_{EB}=-3V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.5 -0.5		-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		-1.1	V	I_C=-500mA, I_B=-50mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.0		-1.0	V	IC=-500mA, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	50 50 20		50 50 20			I_C=-10mA, V_{CE}=-5V I_C=-500mA, V_{CE}=-5V* I_C=-1A, V_{CE}=-5V*
Transition Frequency	f_T	30		30		MHz	I_C=-10mA, V_{CE}=-20V f=20MHz
Output Capacitance	C_{obo}		20		20	pF	V_{CB}=-20V, f=1MHz

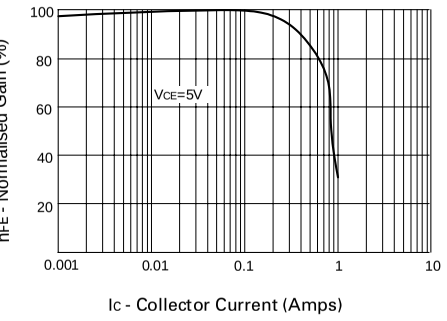
TYPICAL CHARACTERISTICS



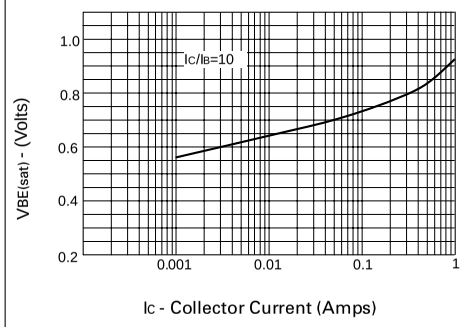
VCE(sat) v IC



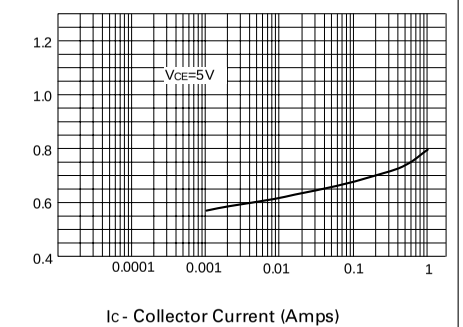
Switching Speeds



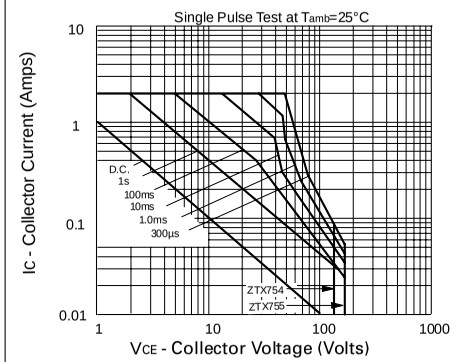
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area