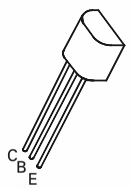
PNP SILICON PLANAR MEDIUM POWER HIGH VOLTAGE TRANSISTORS

ISSUE 2 – JULY 94

ZTX756
ZTX757

FEATURES

* 300 Volt V_{CEO}
* 0.5 Amp continuous current
* P_{tot}= 1 Watt



E-Line
TO92 Compatible

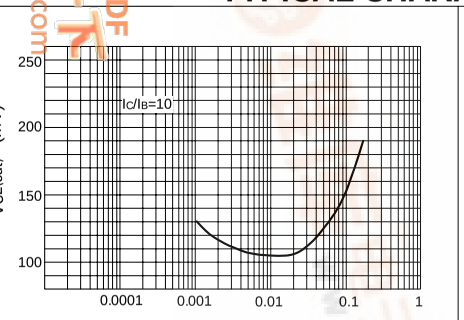
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	ZTX756	ZTX757	UNIT
Collector-Base Voltage	V_{CBO}	-200	-300	V
Collector-Emitter Voltage	V_{CEO}	-200	-300	V
Emitter-Base Voltage	V_{EBO}	-5		V
Peak Pulse Current	I_{CM}	-1		A
Continuous Collector Current	I_C	-0.5		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).

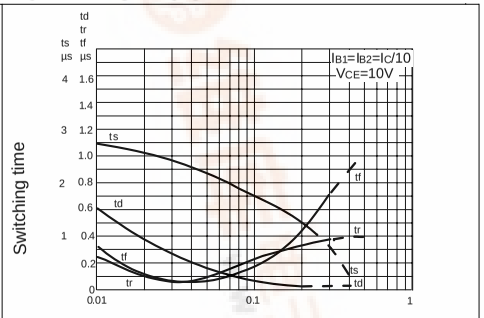
PARAMETER	SYMBOL	ZTX756		ZTX757		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-200		-300		V	I_C=-100µA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-200		-300		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	I_E=-100µA, I_C=0
Collector Cut-Off Current	I_{CBO}		-100		-100	nA nA	V_{CB}=-160V, I_E=0 V_{CB}=-200V, 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=-100mA, I_B=-10mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.0		-1.0	V	I_C=-100mA, I_B=-10mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.0		-1.0	V	IC=-100mA, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	50 40		50 40			I_C=-100mA, V_{CE}=-5V* I_C=-10mA, 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



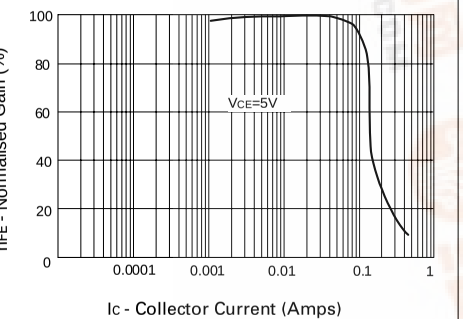
Ic - Collector Current (Amps)

VCE(sat) v IC



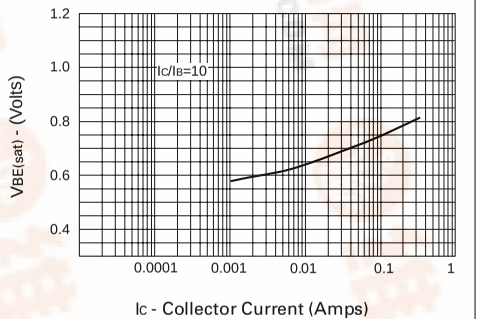
Ic - Collector Current (Amps)

Switching Speeds



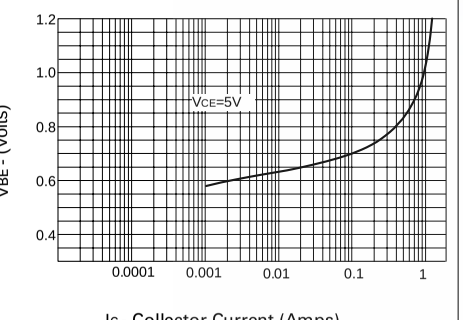
Ic - Collector Current (Amps)

hFE v IC



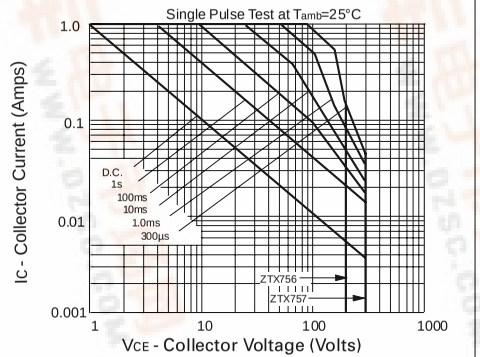
Ic - Collector Current (Amps)

VBE(sat) v IC



Ic - Collector Current (Amps)

VBE(on) v IC



VCE - Collector Voltage (Volts)

Safe Operating Area

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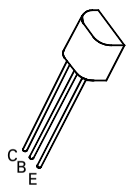

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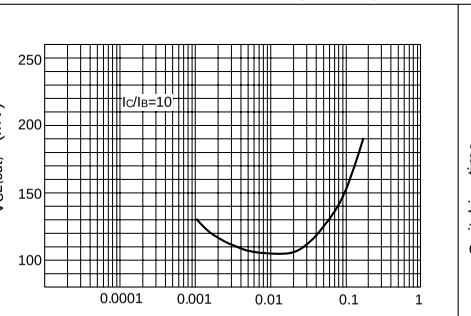
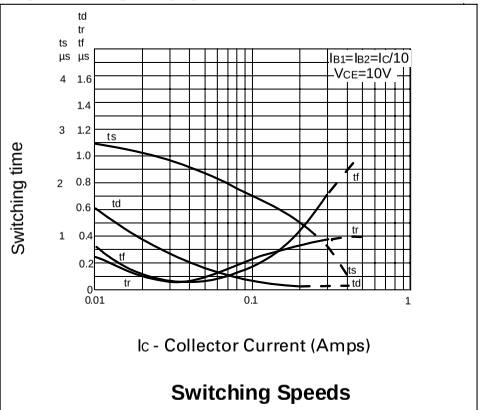
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-200		-300		V	I_C=-10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	I_E=-100µA, I_C=0
Collector Cut-Off Current	I_{CBO}		-100 -100		-100	nA nA	V_{CB}=-160V, I_E=0 V_{CB}=-200V, I_E=0
Emitter Cut-Off Current	I_{EBO}		-100		-100	nA	V_{EB}=-3V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.5		-0.5	V	I_C=-100mA, I_B=-10mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.0		-1.0	V	I_C=-100mA, I_B=-10mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.0		-1.0	V	IC=-100mA, V_{CE}=-5V*
Static Forward Current Transfer Ratio	h_{FE}	50 40		50 40			I_C=-100mA, V_{CE}=-5V* I_C=-10mA, 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

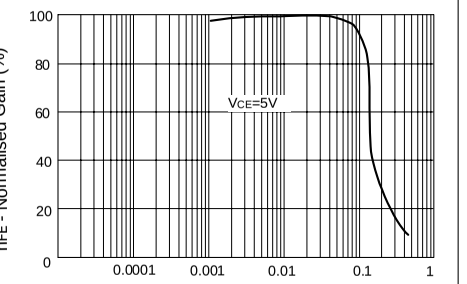
TYPICAL CHARACTERISTICS



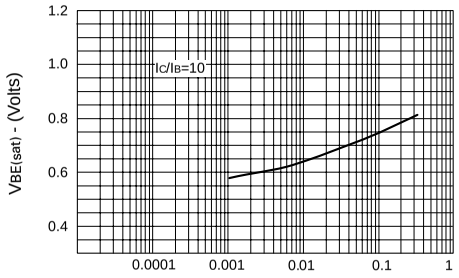
VCE(sat) v IC



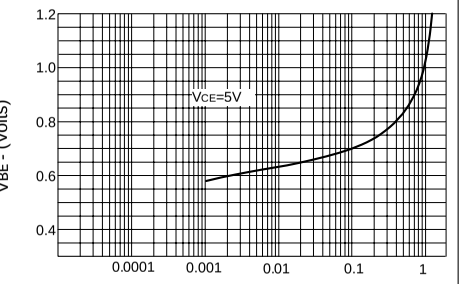
Switching Speeds



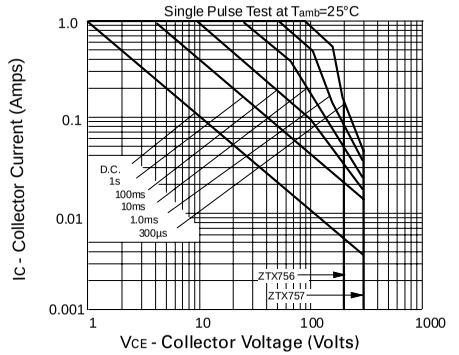
hFE v IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area