

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.

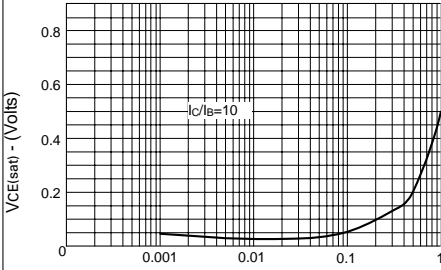
PARAMETER	SYMBOL	ZTX754	ZTX755	UNIT
Collector-Base Voltage	V_{CBO}	-125	-150	V
Collector-Emitter Voltage	V_{CEO}	-125	-150	V
Emitter-Base Voltage	V_{EBO}		-5	V
Peak Pulse Current	I_{CM}		-2	A
Continuous Collector Current	I_C		-1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}		1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200		$^{\circ}C$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	ZTX754		ZTX755		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-125		-150		V	$I_C = -100\mu A, I_E = 0$
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	$I_E = -100\mu A, I_C = 0$
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	$I_C = -500mA, V_{CE} = -5V^*$
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	$V_{CB} = -20V, f = 1MHz$

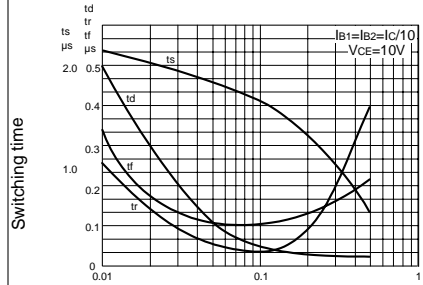
ZTX754 ZTX755

TYPICAL CHARACTERISTICS



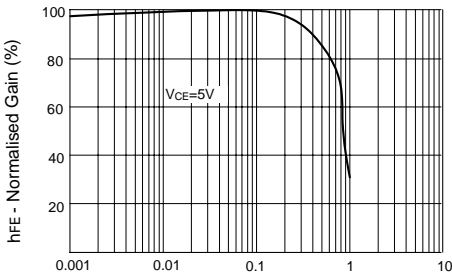
I_C - Collector Current (Amps)

$V_{CE(sat)}$ v I_C



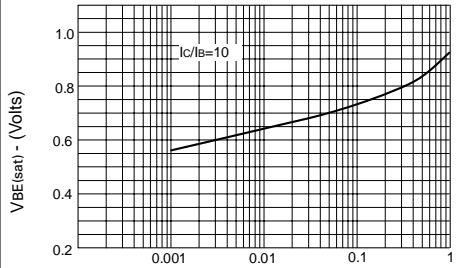
I_C - Collector Current (Amps)

Switching Speeds



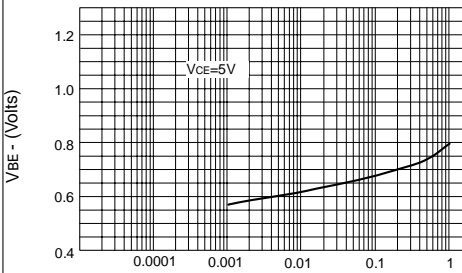
I_C - Collector Current (Amps)

h_{FE} v I_C



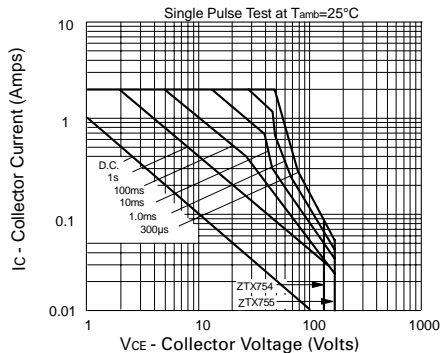
I_C - Collector Current (Amps)

$V_{BE(sat)}$ v I_C



I_C - Collector Current (Amps)

$V_{BE(on)}$ v I_C



Safe Operating Area