

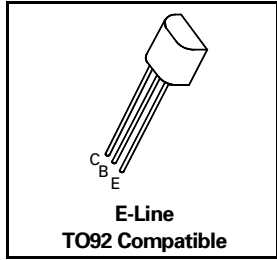
PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

ISSUE 2 – JULY 94

ZTX754 ZTX755

FEATURES

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



ABSOLUTE MAXIMUM RATINGS.

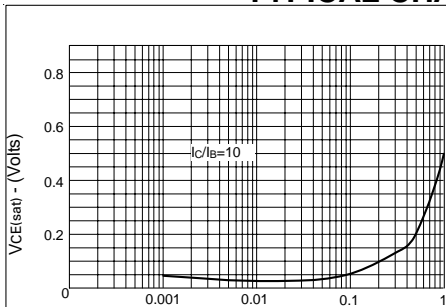
PARAMETER	SYMBOL	ZTX754	ZTX755	UNIT
Collector-Base Voltage	V_{CBO}	-125	-150	V
Collector-Emitter Voltage	V_{CEO}	-125	-150	V
Emitter-Base Voltage	V_{EBO}		-5	V
Peak Pulse Current	I_{CM}		-2	A
Continuous Collector Current	I_C		-1	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}		1	W
Operating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

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

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

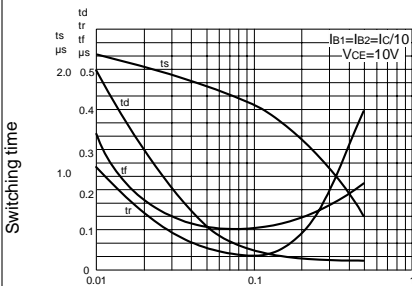
ZTX754 ZTX755

TYPICAL CHARACTERISTICS



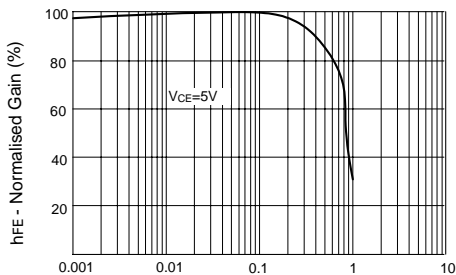
IC - Collector Current (Amps)

VCE(sat) v IC



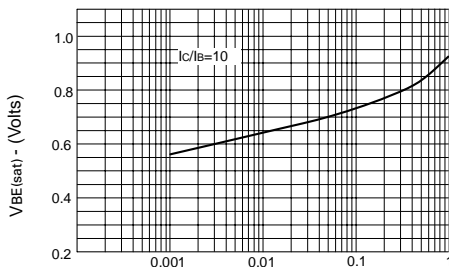
IC - Collector Current (Amps)

Switching Speeds



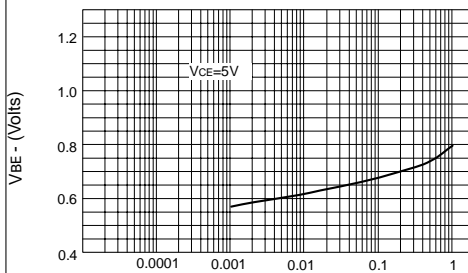
IC - Collector Current (Amps)

hFE v IC



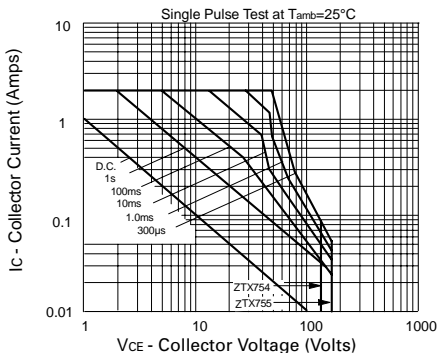
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC



Safe Operating Area