

# PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

## ZTX550 ZTX551

ISSUE 1 – MARCH 94

### FEATURES

- \* 60 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt



E-Line  
TO92 Compatible

### ABSOLUTE MAXIMUM RATINGS.

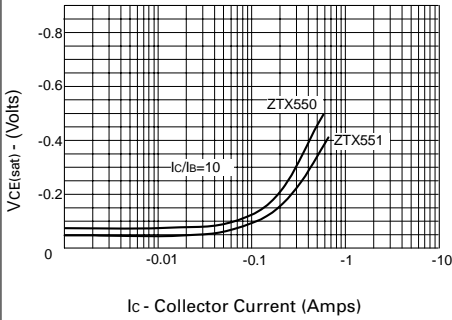
PARAMETER	SYMBOL	ZTX550	ZTX551	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	-80	V
Collector-Emitter Voltage	$V_{CEO}$	-45	-60	V
Emitter-Base Voltage	$V_{EBO}$		-5	V
Peak Pulse Current	$I_{CM}$		-2	A
Continuous Collector Current	$I_C$		-1	A
Power Dissipation: at $T_{amb}=25^{\circ}C$ derate above $25^{\circ}C$	$P_{tot}$		1 5.7	W mW/ $^{\circ}C$
Operating and Storage Temperature Range	$T_j; T_{stg}$		-55 to +200	$^{\circ}C$

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

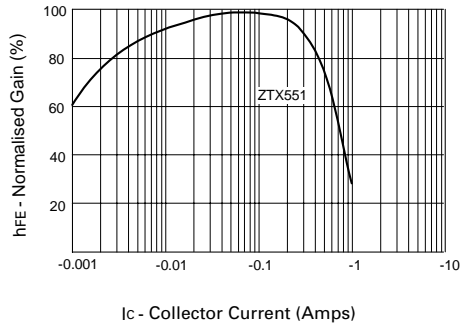
PARAMETER	SYMBOL	ZTX550		ZTX551		UNIT	CONDITIONS.
		MIN.	MAX.	MIN.	MAX.		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60		-80		V	$I_C = -100\mu A$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	-45		-60		V	$I_C = -10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		V	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}$		-0.1		-0.1	$\mu A$	$V_{CB} = -45V$ $V_{CE} = -60V$
Emitter Cut-Off Current	$I_{EBO}$		-0.1		-0.1	$\mu A$	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.25		-0.35	V	$I_C = -150mA$ , $I_B = -15mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.1		-1.1	V	$I_C = -150mA$ , $I_B = -15mA^*$
Static Forward Current Transfer Ratio	$h_{FE}$	100 15	300	50 10	150		$I_C = -150mA$ , $V_{CE} = -10V^*$ $I_C = -1A$ , $V_{CE} = -10V^*$
Transition Frequency	$f_T$	150		150		MHz	$I_C = -50mA$ , $V_{CE} = -10V$ $f = 100MHz$

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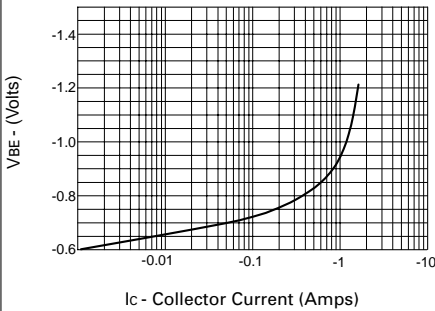
## TYPICAL CHARACTERISTICS



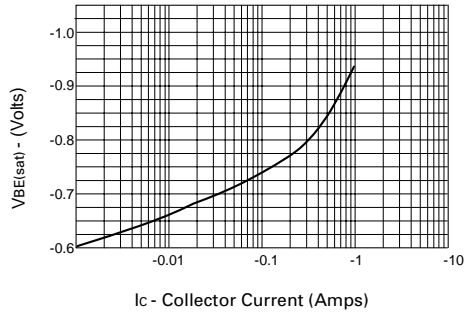
**$V_{CE(sat)}$  v  $I_C$**



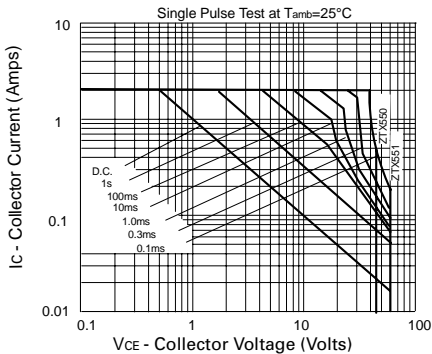
**$h_{FE}$  v  $I_C$**



**$V_{BE(on)}$  v  $I_C$**



**$V_{BE(sat)}$  v  $I_C$**



**Safe Operating Area**