

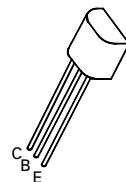
# PNP SILICON PLANAR MEDIUM POWER HIGH VOLTAGE TRANSISTOR

## ZTX576

ISSUE 1 – APRIL 94

### FEATURES

- \* 200 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt



E-Line  
TO92 Compatible

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-200	V
Collector-Emitter Voltage	$V_{CEO}$	-200	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	$^{\circ}C$

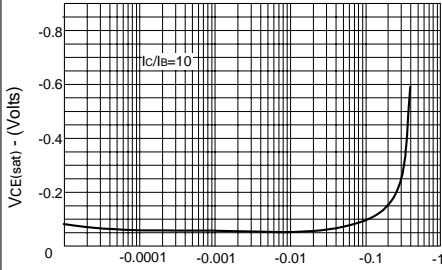
### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ ).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-200			V	$I_C = -100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-200			V	$I_C = -10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -100\mu A$
Collector Cut-Off Current	$I_{CBO}$			-0.1	$\mu A$	$V_{CB} = -160V$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu A$	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3	V	$I_C = -100mA, I_B = -10mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1	V	$I_C = -100mA, I_B = -10mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			-1	V	$I_C = -100mA, V_{CE} = -10V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	50 50		300		$I_C = -10mA, V_{CE} = -10V^*$ $I_C = -300mA, V_{CE} = -10V^*$
Transition Frequency	$f_T$	100			MHz	$I_C = -50mA, V_{CE} = -10V$ $f = 100MHz$

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$

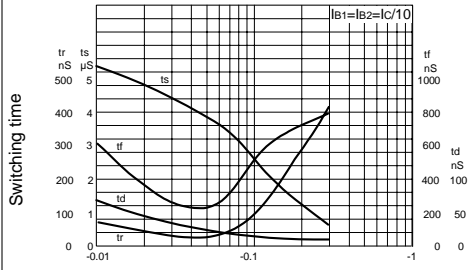
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## TYPICAL CHARACTERISTICS



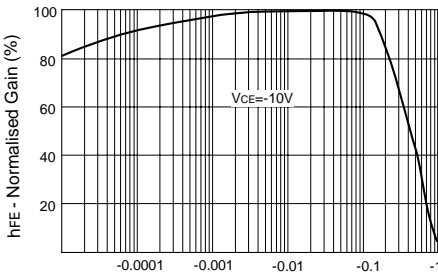
$I_C$  - Collector Current (Amps)

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



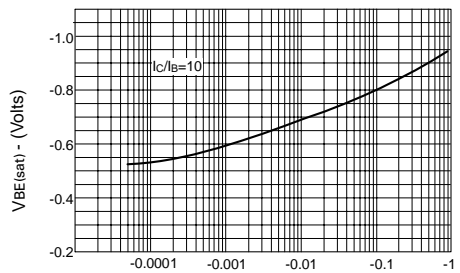
$I_C$  - Collector Current (Amps)

**Typical Switching Speeds**



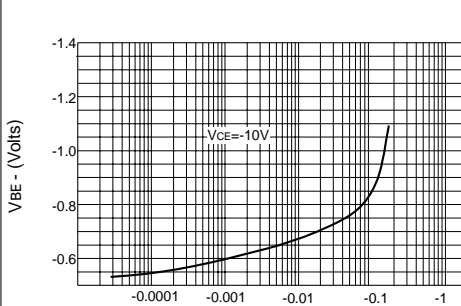
$I_C$  - Collector Current (Amps)

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



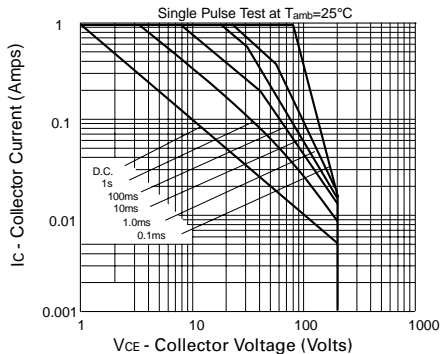
$I_C$  - Collector Current (Amps)

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



$I_C$  - Collector Current (Amps)

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



**Safe Operating Area**