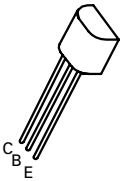


PNP SILICON PLANAR SMALL SIGNAL TRANSISTOR

ISSUE 1 – MARCH 94

ZTX500



**E-Line
TO92 Compatible**

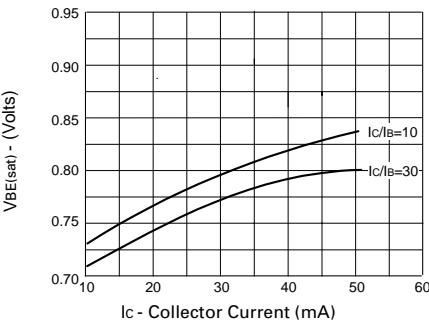
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-25	V
Collector-Emitter Voltage	V_{CEO}	-25	V
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	300	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +175	$^{\circ}C$

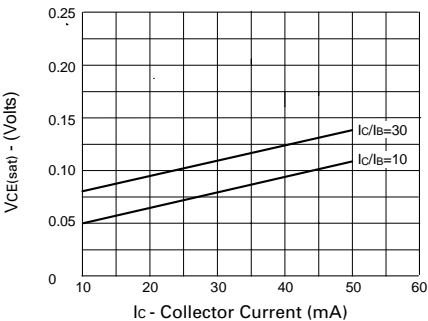
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-25			V	$I_C = -10\mu A$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	-25			V	$I_C = -5mA$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu A$
Collector Cut-Off Current	I_{CBO}			-0.2	μA	$V_{CB} = -25V$
Emitter Cut-Off Current	I_{EBO}			-0.2	μA	$V_{EB} = -4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.35	V	$I_C = -50mA, I_B = -5mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	-0.65		-1	V	$I_C = -10mA, I_B = -1mA^*$
Static Forward Current Transfer Ratio	h_{FE}	50		300		$I_C = -10mA, V_{CE} = -6V^*$
Transition Frequency	f_T	150			MHz	$I_C = -10mA, V_{CE} = -6V$ $f = 100MHz$
Output Capacitance	C_{obo}			6	pF	$V_{CB} = -6V, f = 1MHz$
Noise Figure	N		7		dB	$I_C = -100\mu A, R_S = 1.5K\Omega$ $f = 1KHz$

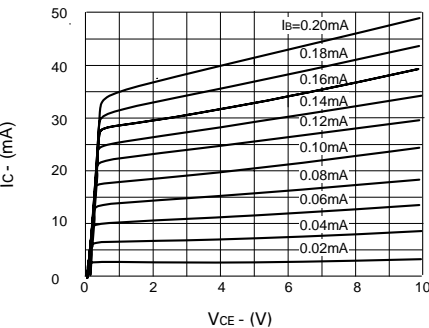
TYPICAL CHARACTERISTICS



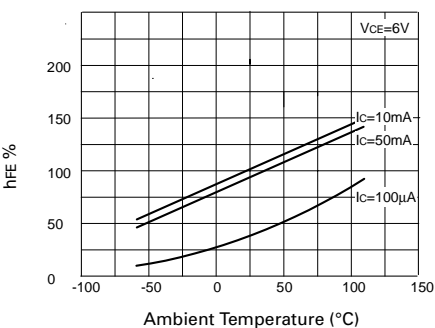
$V_{BE(sat)}$ v I_C



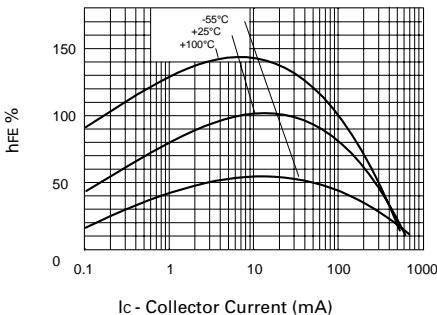
$V_{CE(sat)}$ v I_C



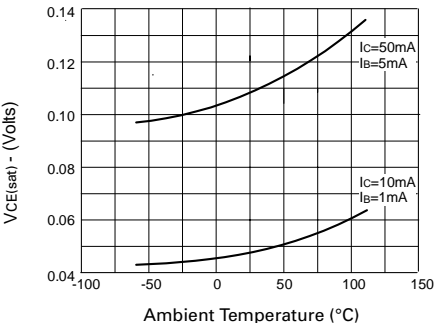
V_{CE} v I_C



h_{FE} v Ambient Temperature



h_{FE} v I_C



$V_{CE(sat)}$ v Ambient Temperature