

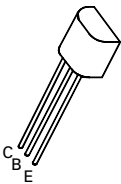
NPN SILICON PLANAR
HIGH SPEED SWITCHING TRANSISTOR

ZTX360

ISSUE 2 – MARCH 94

FEATURES

- * 40 Volt V_{CEO}
- * 1 Amp continuous current
- * Fast switching



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	1	A
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	500	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +175	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	40			V	$I_C=10mA, I_B=0^*$
Collector Cut-Off Current	I_{CBO}			500 300	nA μA	$V_{CB}=40V, I_E=0$ $V_{CB}=40V, I_E=0, T_{amb}=150^{\circ}C$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.6	V	$I_C=500mA, I_B=50mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	0.7		1.2	V	$I_C=500mA, I_B=50mA^*$
Static Forward Current Transfer Ratio	h_{FE}	25		150		$I_C=500mA, V_{CE}=1V^*$
Transition Frequency	f_T	200			MHz	$I_C=50mA, V_{CE}=10V,$ $f=100MHz$
Input Capacitance	C_{ib}		36	50	pF	$V_{EB}=0.5V, I_C=0, f=1MHz$
Output Capacitance	C_{ob}		5.75	10	pF	$V_{CB}=10V, I_E=0, f=1MHz$
Turn-On Time	t_{on}			40	ns	$V_{CC}=30V, I_C=500mA,$ $I_{B(on)}=50mA, -V_{BE(off)}=2V$
Turn-Off Time	t_{off}			75	ns	$V_{CC}=30V, I_C=500mA,$ $I_{B(on)}=I_{B(off)}=50mA$

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