

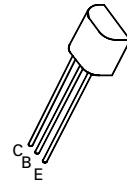
# NPN SILICON PLANAR HIGH SPEED SWITCHING TRANSISTOR

## ZTX360

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### 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-Emmitter 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-Emmitter Sustaining Voltage	$V_{CEO(SUS)}$	40			V	$I_C=10mA, I_B=0^*$
Collector Cut-Off Current	$I_{CBO}$			500 300	nA $\mu A$	$V_{CB}=40V, I_E=0$ $V_{CB}=40V, I_E=0, T_{amb}=150^{\circ}C$
Collector-Emmitter Saturation Voltage	$V_{CE(sat)}$			0.6	V	$I_C=500mA, I_B=50mA^*$
Base-Emmitter 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 $\mu s$ . Duty cycle  $\leq 2\%$