

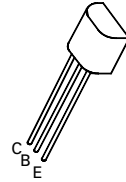
NPN SILICON PLANAR MEDIUM POWER HIGH VOLTAGE TRANSISTOR

ISSUE 2 – MARCH 1994

FEATURES

- * 300 Volt V_{CE0}
- * 0.5 Amp continuous current
- * P_{tot} = 1 Watt

ZTX457



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	500	mA
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 $T_{amb} = 25^{\circ}C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	300			V	$I_C=100\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{CEO(sus)}$	300			V	$I_C=10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}			100 10	nA μA	$V_{CB}=200V$ $V_{CB}=200V, T_{amb}=100^{\circ}C$
Emitter Cut-Off Current	I_{EBO}			100	nA	$V_{EB}=4V$
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 25		300		$I_C=10mA, V_{CE}=10V^*$ $I_C=50mA, V_{CE}=10V^*$ $I_C=100mA, V_{CE}=10V^*$
Transition Frequency	f_T	75			MHz	$I_C=50mA, V_{CE}=10V$ $f=20MHz$

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