

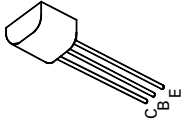
# NPN SILICON PLANAR MEDIUM POWER HIGH VOLTAGE TRANSISTOR

## ZTX457

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### FEATURES

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



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 $\mu A$	$V_{CB} = 200V$ $V_{CB} = 200V, T_{amb} = 100^{\circ}C$
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 $\mu s$ . Duty cycle  $\leq 2\%$