

# PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

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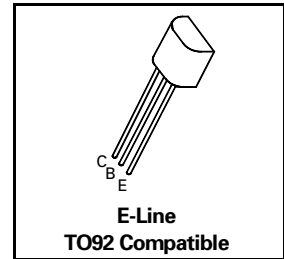
## ZTX776

### FEATURES

- \* 200 Volt  $V_{CEO}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt

REFER TO ZTX755 FOR GRAPHS

### ABSOLUTE MAXIMUM RATINGS.



PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-200	V
Collector-Emitter Voltage	$V_{CEO}$	-200	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-2	A
Continuous Collector Current	$I_C$	-1	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$ derate above $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1 5.7	W mW/°C
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	°C

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-200		V	$I_C = -100\mu\text{A}$ , $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-200		V	$I_C = -10\text{mA}$ , $I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -100\mu\text{A}$ , $I_C = 0$
Collector Cut-Off Current	$I_{CBO}$		-100	nA	$V_{CB} = -160\text{V}$ , $I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$		-100	nA	$V_{EB} = -4\text{V}$ , $I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.5 -0.5	V V	$I_C = -500\text{mA}$ , $I_B = -50\text{mA}^*$ $I_C = -1\text{A}$ , $I_B = -200\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-1.1	V	$I_C = -500\text{mA}$ , $I_B = -50\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.0	V	$I_C = -500\text{mA}$ , $V_{CE} = -5\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	50 50 20			$I_C = -10\text{mA}$ , $V_{CE} = -5\text{V}$ $I_C = -500\text{mA}$ , $V_{CE} = -5\text{V}^*$ $I_C = -1\text{A}$ , $V_{CE} = -5\text{V}^*$
Transition Frequency	$f_T$	30		MHz	$I_C = -10\text{mA}$ , $V_{CE} = -20\text{V}$ $f = 20\text{MHz}$
Output Capacitance	$C_{obo}$		20	pF	$V_{CB} = -20\text{V}$ , $f = 1\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$