

**DISCONTINUED PLEASE  
USE ZTX449**

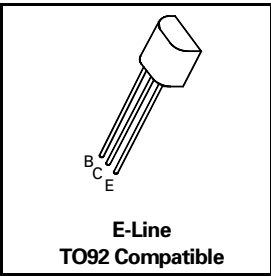
**NPN SILICON PLANAR  
MEDIUM POWER TRANSISTOR**

**FXT449**

**ISSUE 1 – SEPT 93**

**FEATURES**

- \* 30 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot}$  = 1 Watt



REFER TO ZTX449 FOR GRAPHS

**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	30	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 $T_{amb}=25^{\circ}C$	$P_{tot}$	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	$V_{(BR)CBO}$	50			V	$I_C=100\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	30			V	$I_C=10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A, I_C=0$
Collector Cut-Off Current	$I_{CBO}$			0.1 10	$\mu A$ $\mu A$	$V_{CB}=40V$ $V_{CB}=40V, T_{amb}=100^{\circ}C$
Emitter Cut-Off Current	$I_{EBO}$			0.1	$\mu A$	$V_{EB}=4V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5 1	V V	$I_C=1A, I_B=100mA^*$ $I_C=2A, I_B=200mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.25	V	$I_C=1A, I_B=100mA^*$
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			1	V	$I_C=1A, V_{CE}=2V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	70 100 80 40		300		$I_C=50mA, V_{CE}=2V^*$ $I_C=500mA, V_{CE}=2V^*$ $I_C=1A, V_{CE}=2V^*$ $I_C=2A, V_{CE}=2V^*$
Transition Frequency	$f_T$	150			MHz	$I_C=50mA, V_{CE}=10V$ $f=100MHz$
Output Capacitance	$C_{obo}$			15	pF	$V_{CB}=10V, f=1MHz$

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