

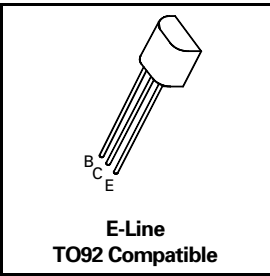
# NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

## FXT451

**ISSUE 1 – SEPT 93**

**FEATURES**

- \* 60 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 1$  Watt



REFER TO ZTX451 FOR GRAPHS

**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	80	V
Collector-Emitter Voltage	$V_{CEO}$	60	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  $T_{amb} = 25^{\circ}C$ ).**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	80			V	$I_C=100\mu A, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	60			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	$\mu A$	$V_{CB}=60V, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$			0.1	$\mu A$	$V_{EB}=4V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.35	V	$I_C=150mA, I_B=15mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.1	V	$I_C=150mA, I_B=15mA^*$
Static Forward Current Transfer Ratio	$h_{FE}$	50 10		150		$I_C=150mA, V_{CE}=10V^*$ $I_C=1A, V_{CE}=10V^*$
Transition Frequency	$f_T$	150			MHz	$I_C=50mA, V_{CE}=10V$ $f=100MHz$
Output Capacitance	$C_{obo}$			15	pF	$V_{CB}=10V, f=1MHz$