

# PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

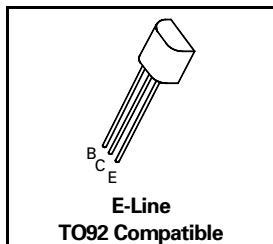
## FXT749

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### FEATURES

- \* 25 Volt  $V_{CE0}$
- \* 2 Amp continuous current
- \* Low saturation voltage
- \*  $P_{tot} = 1$  Watt

REFER TO ZTX749 FOR GRAPHS



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-35	V
Collector-Emitter Voltage	$V_{CEO}$	-25	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-6	A
Continuous Collector Current	$I_C$	-2	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-35			V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-25			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	$I_{CBO}$			-0.1 -10	$\mu\text{A}$ $\mu\text{A}$	$V_{CB} = -30\text{V}$ $V_{CB} = -30\text{V}, T_{amb} = 100^\circ\text{C}$
Emitter Cut-Off Current	$I_{EBO}$			-0.1	$\mu\text{A}$	$V_{EB} = -4\text{V}, I_E = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.12 -0.23	-0.3 -0.5	V V	$I_C = -1\text{A}, I_B = -100\text{mA}^*$ $I_C = -2\text{A}, I_B = -200\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	-1.25	V	$I_C = -1\text{A}, I_B = -100\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.8	-1	V	$I_C = -1\text{A}, V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	70 100 75 15	200 200 150 50	300		$I_C = -50\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -1\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -6\text{A}, V_{CE} = -2\text{V}^*$
Transition Frequency	$f_T$	100	160		MHz	$I_C = -100\text{mA}, V_{CE} = -5\text{V}$ $f = 100\text{MHz}$
Output Capacitance	$C_{obo}$			100	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

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