

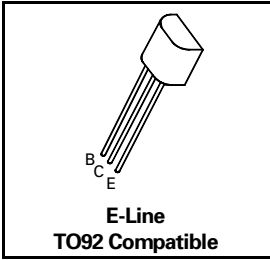
NPN SILICON PLANAR MEDIUM POWER HIGH VOLTAGE TRANSISTOR

FXT458

ISSUE 1 – SEPTEMBER 1994

FEATURES

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



REFER TO ZTX458 FOR GRAPHS

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	300	mA
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 $T_{amb} = 25^\circ\text{C}$).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	400			V	$I_C = 100\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{CEO(sus)}$	400			V	$I_C = 10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E = 100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			100	nA	$V_{CB} = 320\text{V}$
Collector Cut-Off Current	I_{CES}			100	nA	$V_{CE} = 320\text{V}$
Emitter Cut-Off Current	I_{EBO}			100	nA	$V_{EB} = 4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.2 0.5	V	$I_C = 20\text{mA}, I_B = 2\text{mA}$ $I_C = 50\text{mA}, I_B = 6\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			0.9	V	$I_C = 50\text{mA}, I_B = 5\text{mA}$
Base-Emitter Turn On Voltage	$V_{BE(on)}$			0.9	V	$I_C = 50\text{mA}, V_{CE} = 10\text{V}$
Static Forward Current Transfer Ratio	h_{FE}	100 100 15		300		$I_C = 1\text{mA}, V_{CE} = 10\text{V}$ $I_C = 50\text{mA}, V_{CE} = 10\text{V}$ $I_C = 100\text{mA}, V_{CE} = 10\text{V}^*$
Transition Frequency	f_T	50			MHz	$I_C = 10\text{mA}, V_{CE} = 20\text{V}$ $f = 20\text{MHz}$
Collector-Base Breakdown Voltage	C_{obo}			5	pF	$V_{CB} = 20\text{V}, f = 1\text{MHz}$