

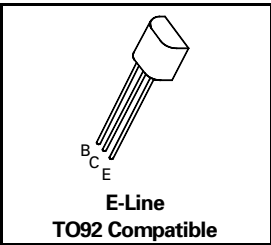
NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FXT655

ISSUE 1 – FEB 94

FEATURES

- * 150 Volt V_{CEO}
- * 1 Amp continuous current
- * Low saturation voltage
- * $P_{tot} = 1$ Watt



REFER TO ZTX655 FOR GRAPHS

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	150	V
Collector-Emitter Voltage	V_{CEO}	150	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 $T_{amb} = 25^\circ\text{C}$	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	$V_{(BR)CBO}$	150			V	$I_C = 100\mu\text{A}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	150			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	$V_{CB} = 125\text{V}$, $I_E = 0$
Emitter Cut-Off Current	I_{EBO}			100	nA	$V_{EB} = 3\text{V}$, $I_C = 0$
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	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 μs . Duty cycle $\leq 2\%$

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