

NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

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FXT657

ISSUE 1 – FEB 94

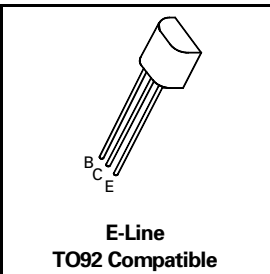
FEATURES

- * 300 Volt V_{CE0}
- * 0.5 Amps continuous current
- * $P_{tot} = 1$ Watt

APPLICATIONS

- * Telephone dialler circuits
- * Video output drivers

REFER TO ZTX657 FOR GRAPHS



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	1	A
Continuous Collector Current	I_C	0.5	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	$V_{(BR)CBO}$	300			V	$I_C = 100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	300			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	$V_{CB} = 200\text{V}, I_E = 0$
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	V	$I_C = 100\text{mA}, I_B = 10\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1	V	$I_C = 100\text{mA}, I_B = 10\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1	V	$I_C = 100\text{mA}, V_{CE} = 5\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	40 50				$I_C = 10\text{mA}, V_{CE} = 5\text{V}^*$ $I_C = 100\text{mA}, V_{CE} = 5\text{V}^*$
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 $\leq 2\%$