

# NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

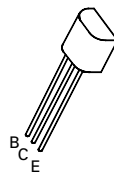
## FXT655

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### FEATURES

- \* 150 Volt  $V_{CE0}$
- \* 1 Amp continuous current
- \* Low saturation voltage
- \*  $P_{tot} = 1$  Watt

REFER TO ZTX655 FOR GRAPHS



E-Line  
TO92 Compatible

### 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 $\mu\text{s}$ . Duty cycle  $\leq 2\%$