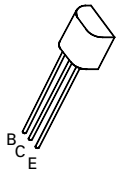
NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FXT655

ISSUE 1 – FEB 94

FEATURES

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



E-Line
TO92 Compatible

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 Dissipationat T_{amb}=25°C	P_{tot}	1	W
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +200	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	150			V	I_C=100μA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	150			V	I_C=10mA, I_B=0*
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=100μA, I_C=0
Collector Cut-Off Current	I_{CBO}			100	nA	V_{CB}=125V, I_E=0
Emitter Cut-Off Current	I_{EBO}			100	nA	V_{EB}=3V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5 0.5	V V	I_C=500mA, I_B=50mA* I_C=1A, I_B=200mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1.1	V	I_C=500mA, I_B=50mA*
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1	V	IC=500mA, V_{CE}=5V*
Static Forward Current Transfer Ratio	h_{FE}	50 50 20				I_C=10mA, V_{CE}=5V I_C=500mA, V_{CE}=5V* I_C=1A, V_{CE}=5V*
Transition Frequency	f_T	30			MHz	I_C=10mA, V_{CE}=20V f=20MHz
Output Capacitance	C_{obo}			20	pF	V_{CB}=20V, f=1MHz

*Measured under pulsed conditions. Pulse Width=300μs. Duty cycle ≤2%