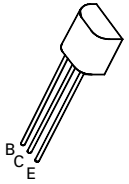
NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

FXT455

ISSUE 1 – SEPT 93

FEATURES

* 140 Volt V_{CEO}
* 1 Amp continuous current
* P_{tot}= 1 Watt



E-Line
TO92 Compatible

REFER TO ZTX455 FOR GRAPHS

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	160	V
Collector-Emitter Voltage	V_{CEO}	140	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°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	$V_{(BR)CBO}$	160			V	I_C=100μA, I_E=0
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	140			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}			0.1	μA	V_{CB}=140V, I_E=0
Emitter Cut-Off Current	I_{EBO}			0.1	μA	V_{EB}=4V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.7	V	I_C=150mA, I_B=15mA*
Static Forward Current Transfer Ratio	h_{FE}	100 10		300		I_C=150mA, V_{CE}=10V* I_C=1A, V_{CE}=10V*
Transition Frequency	f_T	100			MHz	I_C=50mA, V_{CE}=10V f=100MHz
Output Capacitance	C_{obo}			15	pF	V_{CB}=10V, f=1MHz

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