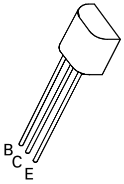
PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 1 – FEB 94

FXT553

FEATURES

- 100 Volt V_{CEO}
- 1 Amp continuous current
- P_{tot}= 1 Watt



E-Line
TO92 Compatible

REFER TO ZTX553 FOR GRAPHS

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-120	V
Collector-Emitter Voltage	V_{CEO}	-100	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	$V_{(BR)CBO}$	-120			V	I_C=-100µA, I_E=0
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	-100			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}=-100V, I_E=0
Emitter Cut-Off Current	I_{EBO}			-0.1	µA	V_{EB}=-4V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.25	V	I_C=-150mA, I_B=-15mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.1	V	I_C=-150mA, I_B=-15mA*
Base-Emitter Turn-on Voltage	$V_{BE(on)}$			-1	V	I_C=-150mA, V_{CE}=-10V
Static Forward Current Transfer Ratio	h_{FE}	40 10		200		I_C=-150mA, V_{CE}=-10V* I_C=-1A, V_{CE}=-10V*
Transition Frequency	f_T	150			MHz	I_C=-50mA, V_{CE}=-10V f=100MHz
Output Capacitance	C_{obo}			12	pF	V_{CB}=-10V, f=1MHz

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