

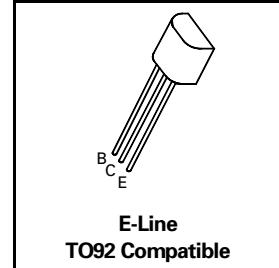
PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

ISSUE 1 – FEB 94

FEATURES

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

FXT553



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 $T_{amb}=25^\circ\text{C}$	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	$V_{(BR)CBO}$	-120			V	$I_C=-100\mu\text{A}, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(\text{sus})}$	-100			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}			-0.1	μA	$V_{CB}=-100\text{V}, I_E=0$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB}=-4\text{V}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$			-0.25	V	$I_C=-150\text{mA}, I_B=-15\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$			-1.1	V	$I_C=-150\text{mA}, I_B=-15\text{mA}^*$
Base-Emitter Turn-on Voltage	$V_{BE(\text{on})}$			-1	V	$I_C=-150\text{mA}, V_{CE}=-10\text{V}$
Static Forward Current Transfer Ratio	h_{FE}	40 10		200		$I_C=-150\text{mA}, V_{CE}=-10\text{V}^*$ $I_C=1\text{A}, V_{CE}=-10\text{V}^*$
Transition Frequency	f_T	150			MHz	$I_C=-50\text{mA}, V_{CE}=-10\text{V}$ $f=100\text{MHz}$
Output Capacitance	C_{obo}			12	pF	$V_{CB}=-10\text{V}, f=1\text{MHz}$

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