

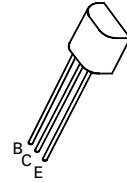
PNP SILICON PLANAR SWITCHING TRANSISTOR

FXT2907A

ISSUE 2 – SEPTEMBER 94

FEATURES

- * 60 Volt V_{CEO}
- * Fast switching



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-600	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	500	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60			V	$I_C = -10\mu\text{A}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			V	$I_C = -10\text{mA}$, $I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -10\mu\text{A}$, $I_C = 0$
Collector-Emitter Cut-Off Current	I_{CEX}			-50	nA	$V_{CE} = -30\text{V}$, $V_{BE} = -0.5\text{V}$
Collector Cut-Off Current	I_{CBO}			-10 -10	nA μA	$V_{CB} = -50\text{V}$, $I_E = 0$ $V_{CB} = -50\text{V}$, $I_E = 0$, $T_{amb} = 150^\circ\text{C}$
Base Cut-Off Current	I_B			-50	nA	$V_{CE} = -30\text{V}$, $V_{BE} = -0.5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.4 -1.6	V V	$I_C = -150\text{mA}$, $I_B = -15\text{mA}^*$ $I_C = -500\text{mA}$, $I_B = -50\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.3 -2.6	V V	$I_C = -150\text{mA}$, $I_B = -15\text{mA}^*$ $I_C = -500\text{mA}$, $I_B = -50\text{mA}^*$
Static Forward Current Transfer Ratio	h_{FE}	75 100 100 100 50		300		$I_C = -0.1\text{mA}$, $V_{CE} = -10\text{V}$ $I_C = -1\text{mA}$, $V_{CE} = -10\text{V}$ $I_C = -10\text{mA}$, $V_{CE} = -10\text{V}$ $I_C = -150\text{mA}$, $V_{CE} = -10\text{V}^*$ $I_C = -500\text{mA}$, $V_{CE} = -10\text{V}^*$
Transition Frequency	f_T	200			MHz	$I_C = -50\text{mA}$, $V_{CE} = -20\text{V}$ $f = 100\text{MHz}$

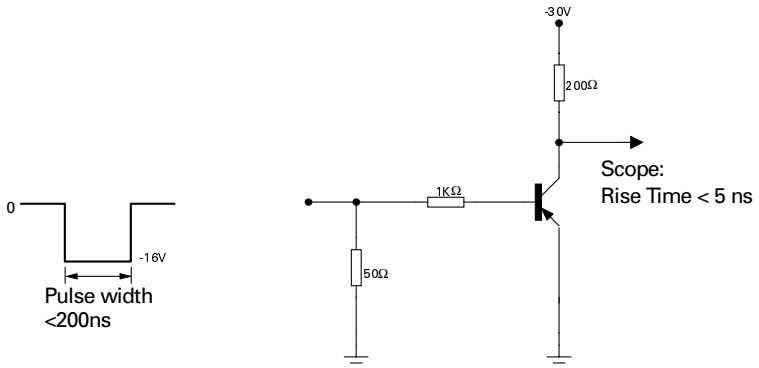
*Measured under pulsed conditions. Pulse width=300ms. Duty cycle $\leq 2\%$

FXT2907A

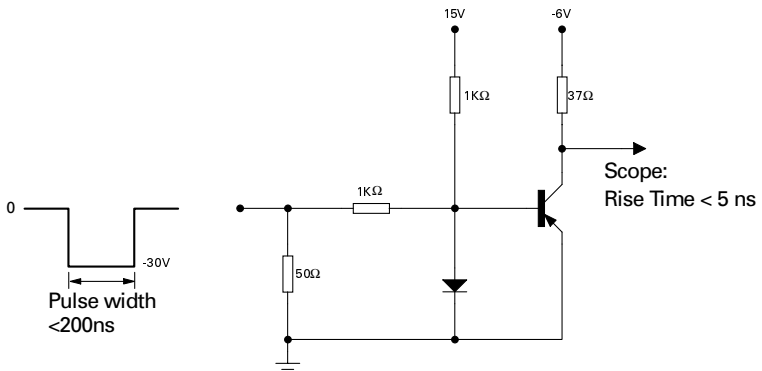
SWITCHING CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Output Capacitance	C_{obo}			8	pF	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 100\text{KHz}$
Input Capacitance	C_{ibo}			30	pF	$V_{BE} = 2\text{V}$, $I_C = 0$, $f = 100\text{KHz}$
Turn On Time	t_{on}			50	ns	$V_{CE} = -30\text{V}$ $I_C = -150\text{mA}$, $I_{B1} = 15\text{mA}$ (See Turn On Circuit)
Turn Off Time	t_{off}			110	ns	$V_{CC} = -6\text{V}$, $I_C = -150\text{mA}$ $I_{B1} = I_{B2} = -15\text{mA}$ (See Turn Off Circuit)

TURN ON TIME – TEST CIRCUIT



TURN OFF TIME – TEST CIRCUIT





LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.