

NPN SILICON PLANAR MEDIUM
POWER DARLINGTON TRANSISTOR

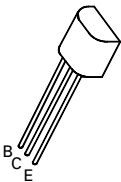
FXT38C

ISSUE 1 – SEPT 93

FEATURES

- * 60 Volt V_{CEO}
- * Gain of 10K at $I_C=0.5$ Amp

REFER TO BCX38 FOR GRAPHS



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	10	V
Peak Pulse Current	I_{CM}	2	A
Continuous Collector Current	I_C	800	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	1	W
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	80			V	$I_C=10\mu A, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	60			V	$I_C=10mA, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	10			V	$I_E=10\mu A, I_C=0$
Collector Cut-Off Current	I_{CBO}			100	nA	$V_{CB}=60V, I_E=0$
Emitter Cut-Off Current	I_{EBO}			100	nA	$V_{EB}=8V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			1.25	V	$I_C=800mA, I_B=8mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$			1.8	V	$I_C=800mA, V_{CE}=5V^*$
Static Forward Current Transfer Ratio	h_{FE}	5000 10000				$I_C=100mA, V_{CE}=5V^*$ $I_C=500mA, V_{CE}=5V^*$

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