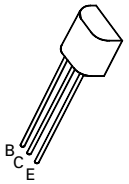
NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

FXT38C

ISSUE 1 – SEPT 93

FEATURES

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



E-Line
TO92 Compatible

REFER TO BCX38 FOR GRAPHS

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°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	$V_{(BR)CBO}$	80			V	I_C=10μA, 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=10μA, 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=300μs. Duty cycle ≤ 2%