

NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

FXT614

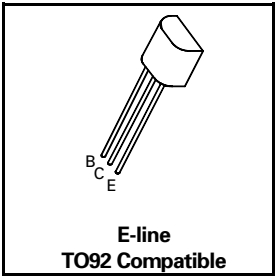
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FEATURES

- * 100 Volt V_{CE0}
- * 800 mA continuous current
- * Gain of 10K at $I_C=500mA$
- * $P_{tot} = 1$ Watt

APPLICATIONS

- * Lamp, solenoid and relay drivers
- REFER TO BCX38 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}	10	V
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	$V_{(BR)CBO}$	120			V	$I_C=10\mu A, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	100			V	$I_C=10mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	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 $\leq 2\%$