

PNP SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

ZTX712

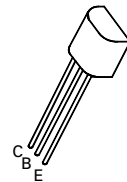
ISSUE 1 – MAY 94

FEATURES

- * 60 Volt V_{CE0}
- * 0.8 Amp continuous current
- * Gain of 10K at $I_C=0.5$ Amp

APPLICATIONS

- * Lamp, solenoid and relay drivers



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 $T_{amb} = 25^\circ\text{C}$ derate above 25°C	P_{tot}	1 5.7	W mW/ $^\circ\text{C}$
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +200	$^\circ\text{C}$

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

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

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