

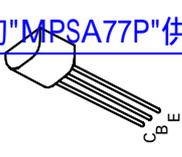
PNP SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

MPSA77P

ISSUE 1 – JUNE 94

FEATURES

- * 60 Volt V_{CE0}
- * Gain of 10k at $I_C=100\text{mA}$



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}	-10	V
Continuous Collector Current	I_C	-500	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	625	mW
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +200	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60			V	$I_C=-100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			V	$I_C=-100\mu\text{A}, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-10			V	$I_E=-10\mu\text{A}, I_C=0$
Collector Cut-Off Current	I_{CBO}			-100	nA	$V_{CB}=-50\text{V}, I_E=0$
Collector Cut-Off Current	I_{CES}			-500	nA	$V_{CE}=-50\text{V}$
Emitter Cut-Off Current	I_{EBO}			-100	nA	$V_{EB}=-10\text{V}, I_C=0$
Collector-Emitter On Voltage	$V_{CE(sat)}$			-1.5	V	$I_C=-100\text{mA}, I_B=-0.1\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(on)}$			-2	V	$I_C=-100\text{mA}, V_{CE}=-5\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	10k				$I_C=-10\text{mA}, V_{CE}=-5\text{V}^*$ $I_C=-100\text{mA}, V_{CE}=-5\text{V}^*$

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