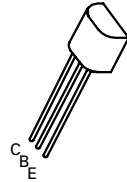


# NPN SILICON PLANAR MEDIUM POWER DARLINGTON TRANSISTOR

## BC372P

**ISSUE 2 – SEPT 93**
**FEATURES**

- \* 100 Volt  $V_{CE0}$
- \* Gain of 8k at  $I_C=250\text{mA}$
- \*  $P_{\text{tot}}=1$  Watt


**E-Line  
TO92 Compatible**
**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
Emitter-Base Voltage	$V_{EBO}$	12	V
Peak Pulse Current	$I_{CM}$	2	A
Continuous Collector Current	$I_C$	1	A
Power Dissipation at $T_{\text{amb}}=25^\circ\text{C}$	$P_{\text{tot}}$	1	W
Operating and Storage Temperature Range	$T_j; T_{\text{stg}}$	-55 to +200	$^\circ\text{C}$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	100			V	$I_C=100\mu\text{A}$ , $I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	100			V	$I_C=100\mu\text{A}$ , $I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	12			V	$I_E=10\mu\text{A}$ , $I_C=0$
Collector Cut-Off Current	$I_{CBO}$			100	nA	$V_{CB}=80\text{V}$ , $I_E=0$
Emitter Cut-Off Current	$I_{EBO}$			100	nA	$V_{EB}=10\text{V}$ , $I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$			1.1	V	$I_C=250\text{mA}$ , $I_B=0.25\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$			2	V	$I_C=250\text{mA}$ , $I_B=0.25\text{mA}$
Static Forward Current Transfer Ratio	$h_{FE}$	10K 8K				$I_C=100\text{mA}$ , $V_{CE}=5\text{V}^*$ $I_C=250\text{mA}$ , $V_{CE}=5\text{V}^*$
Transition Frequency	$f_T$	100			MHz	$I_C=100\text{mA}$ , $V_{CE}=5\text{V}$ $f=100\text{MHz}$
Output Capacitance	$C_{\text{obo}}$			25	pF	$V_{CB}=10\text{V}$ , $f=1\text{MHz}$