

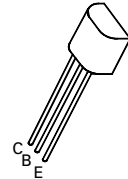
# PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**2N6728  
2N6729  
2N6730**

**ISSUE 1 – MARCH 94**

## FEATURES

- \* 100 Volt  $V_{CE0}$
- \* Gain of 20 at  $I_C = 0.5$  Amp
- \*  $P_{tot} = 1$  Watt



**E-Line  
TO92 Compatible**

## ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	2N6728	2N6729	2N6730	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	-80	-100	V
Collector-Emitter Voltage	$V_{CEO}$	-60	-80	-100	V
Emitter-Base Voltage	$V_{EBO}$	-5			V
Peak Pulse Current	$I_{CM}$	-2			A
Continuous Collector Current	$I_C$	-1			A
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	1			W
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	2N6728		2N6729		2N6730		UNIT	CONDITIONS.
		MIN.	MAX	MIN.	MAX	MIN.	MAX		
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60		-80		-100		V	$I_C = -0.1\text{mA}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60		-80		-100		V	$I_C = -1\text{mA}, I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		-5		-5		V	$I_E = -1\text{mA}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$		-1		-1		-1	$\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$	$V_{CB} = -60\text{V}, I_E = 0$ $V_{CB} = -80\text{V}, I_E = 0$ $V_{CB} = -100\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$		-1		-1		-1	$\mu\text{A}$	$V_{EB} = -5\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.5 -0.35		-0.5 -0.35		-0.5 -0.35	V	$I_C = -250\text{mA}, I_B = -10\text{mA}^*$ $I_C = -250\text{mA}, I_B = -25\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-1.2		-1.2		-1.2	V	$I_C = -250\text{mA}, V_{CE} = -1\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	80 50 20	250	80 50 20	250	80 50 20	250		$I_C = -50\text{mA}, V_{CE} = -1\text{V}^*$ $I_C = -250\text{mA}, V_{CE} = -1\text{V}^*$ $I_C = -500\text{mA}, V_{CE} = -1\text{V}^*$
Transition Frequency	$f_T$	50	500	50	500	50	500	MHz	$I_C = -50\text{mA}, V_{CE} = -10\text{V}$
Collector Base Capacitance	$C_{CB}$		30		30		30	pF	$V_{CE} = -10\text{V}, f = 1\text{MHz}$