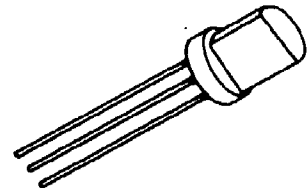




Silicon Transistor

2N3721 is a NPN silicon transistor intended for general purpose applications. The planar passivated construction assures excellent device stability and life. This high performance, high value device is made possible by utilizing advanced manufacturing techniques and epoxy encapsulation.



absolute maximum ratings: (25°C) (unless otherwise specified)

Voltages

Collector to emitter	V_{CEO}	18	V
Emitter to base	V_{EBO}	5	V
Collector to base	V_{CBO}	18	V

Current

Collector (steady state)	I_C	100	mA
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Dissipation

Total Power (Free air @ 25°C)	P_{T**}	360	mW
Total Power (Free air @ 55°C)	P_{T**}	280	mW

Temperature

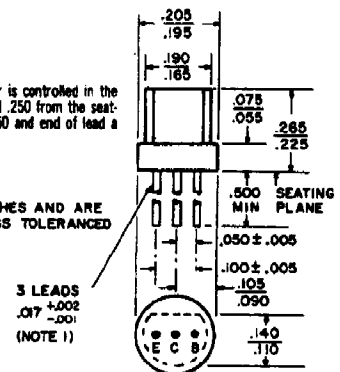
Storage	T_{STG}	-55 to	+125°C
Operating	T_J		+125°C

* Determined from power limitations due to saturation voltage at this current.

** Derate 2.67 mW/°C increase in ambient temperature above 25°C.

NOTE 1: Lead diameter is controlled in the zone between .070 and .250 from the seating plane. Between .250 and end of lead a max. of .021 is held.

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electrical characteristics: (25°C) (unless otherwise specified)

DC Characteristics

		Min.	Typ.	Max.	Units
Collector cutoff current: ($V_{CB} = 18V$)	I_{CBO}			0.5	μA
($V_{CB} = 18V, T_A = 100^\circ C$)	I_{CBO}			15	μA
Emitter cutoff current: ($V_{EB} = 5V$)	I_{EBO}			0.5	μA

Small Signal Characteristics

Forward current transfer ratio: ($V_{CE} = 10V$, $I_C = 2 \text{ ma}$, $f = 1k \text{ Hz} \dagger$)	h_{FE}	60		660	
Input impedance: ($V_{CE} = 10V, I_C = 2mA, f = 1k \text{ Hz}$)	h_{iB}		15		ohms

High Frequency Characteristics

Collector capacitance: ($V_{CB} = 10V, I_E = 0$, $f = 1 \text{ MHz}$)	C_{cb}	4.5	7	10	pF
Gain bandwidth product: ($I_C = 4mA, V_{CB} = 5V$)	f_t		120		MHz

† Hz=Hertz, equivalent to cycles per second.