

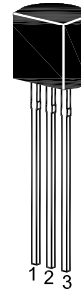
PNP Silicon Epitaxial Planar Transistors

for general purpose, high voltage amplifier applications.

2N5400 / 2N5401

As complementary types the NPN transistors 2N5550 and 2N5551 are recommended.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	2N5400 130	V
		2N5401 160	
Collector Emitter Voltage	$-V_{CEO}$	2N5400 120	V
		2N5401 150	
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	600	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$
2N5400 / 2N5401

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 1\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 50\text{ mA}$	2N5400	h_{FE}	30	-	-
	2N5401	h_{FE}	50	-	-
	2N5400	h_{FE}	40	180	-
	2N5401	h_{FE}	60	240	-
	2N5400	h_{FE}	40	-	-
	2N5401	h_{FE}	50	-	-
Collector Base Cutoff Current at $-V_{CB} = 100\text{ V}$ at $-V_{CB} = 120\text{ V}$	2N5400	$-I_{CBO}$	-	100	nA
	2N5401		-	50	
Emitter Base Cutoff Current at $-V_{EB} = 3\text{ V}$		$-I_{EBO}$	-	50	nA
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	2N5400	$-V_{(BR)CBO}$	130	-	V
	2N5401		160	-	
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	2N5400	$-V_{(BR)CEO}$	120	-	V
	2N5401		150	-	
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$		$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 1\text{ mA}$ at $-I_C = 50\text{ mA}$, $-I_B = 5\text{ mA}$		$-V_{CE(sat)}$	-	0.2	V
			-	0.5	
Base Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 1\text{ mA}$ at $-I_C = 50\text{ mA}$, $-I_B = 5\text{ mA}$		$-V_{BE(sat)}$	-	1	V
			-	1	
Gain Bandwidth Product at $-V_{CE} = 10\text{ V}$, $-I_C = 10\text{ mA}$, $f = 100\text{ MHz}$		f_T	100	400	MHz
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$		C_{ob}	-	6	pF

2N5400 / 2N5401

