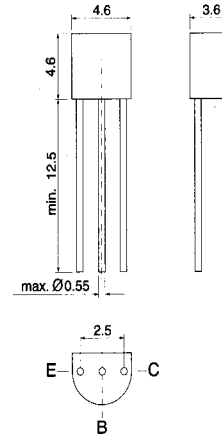


HN / 2N 5400/5401

PNP Silicon Epitaxial Planar Transistors
for general purpose, high voltage amplifier applications.

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

On special request, these transistors can be manufactured in different pin configurations. Please refer to the "TO-92 TRANSISTOR PACKAGE OUTLINE" on page 80 for the available pin options.



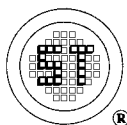
TO-92 Plastic Package
Weight approx. 0.18 g
Dimensions in mm

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

		Symbol	Value	Unit
Collector-Emitter Voltage	HN / 2N 5400	$-V_{\text{CEO}}$	120	V
	HN / 2N 5401	$-V_{\text{CEO}}$	150	V
Collector-Base Voltage	HN / 2N 5400	$-V_{\text{CBO}}$	130	V
	HN / 2N 5401	$-V_{\text{CBO}}$	160	V
Emitter Base Voltage		$-V_{\text{EBO}}$	5	V
Collector Current		$-I_{\text{C}}$	600	mA
Power Dissipation at $T_{\text{amb}} = 25^\circ\text{C}$		P_{tot}	625 ¹⁾	mW
Junction Temperature		T_{j}	150	$^\circ\text{C}$
Storage Temperature Range		T_{s}	-55 to + 150	$^\circ\text{C}$

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

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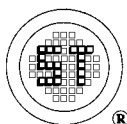
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Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

		Symbol	Min.	Typ.	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 $-V_{CE} = 5\text{V}$, $-I_C = 50\text{mA}$	HN / 2N 5400	h_{FE}	30	-	-	-
	HN / 2N 5401	h_{FE}	50	-	-	-
	HN / 2N 5400	h_{FE}	40	-	180	-
	HN / 2N 5401	h_{FE}	60	-	240	-
	HN / 2N 5400	h_{FE}	40	-	-	-
	HN / 2N 5401	h_{FE}	50	-	-	-
Collector Emitter Breakdown Voltage at $-I_C = 1\text{mA}$	HN / 2N 5400	$-V_{(BR)CEO}$	120	-	-	V
	HN / 2N 5401	$-V_{(BR)CEO}$	150	-	-	V
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	HN / 2N 5400	$-V_{(BR)CBO}$	130	-	-	V
	HN / 2N 5401	$-V_{(BR)CBO}$	160	-	-	V
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$		$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $-V_{CB} = 100\text{V}$ at $-V_{CB} = 120\text{V}$	HN / 2N 5400	$-I_{CBO}$	-	-	100	nA
	HN / 2N 5401	$-I_{CBO}$	-	-	50	nA
Emitter Cutoff Current at $-V_{EB} = 3\text{V}$		$-I_{EBO}$	-	-	50	nA
Collector Saturation Voltage at $-I_C = 10\text{mA}$, $-I_B = 1\text{mA}$ at $-I_C = 50\text{mA}$, $-I_B = 5\text{mA}$		$-V_{CE\text{ sat}}$	-	-	0.2	V
		$-V_{CE\text{ sat}}$	-	-	0.5	V
Base Saturation Voltage at $-I_C = 10\text{mA}$, $-I_B = 1\text{mA}$ at $-I_C = 50\text{mA}$, $-I_B = 5\text{mA}$		$-V_{BE\text{ sat}}$	-	-	1	V
		$-V_{BE\text{ sat}}$	-	-	1	V
Gain Bandwidth Product at $-V_{CE} = 10\text{V}$, $-I_C = 10\text{mA}$, $f = 100\text{MHz}$	HN / 2N 5400	f_T	100	-	400	MHz
	HN / 2N 5401	f_T	100	-	400	MHz
Collector Base Capacitance at $-V_{CB} = 10\text{V}$, $f = 1\text{MHz}$		C_{CBO}	-	-	6	pF
Noise Figure at $-V_{CE} = 5\text{V}$, $-I_C = 200\text{ }\mu\text{A}$, $R_G = 2\text{k}\Omega$, $f = 30\text{Hz} \dots 15\text{kHz}$		F	-	-	8	dB
Thermal Resistance Junction to Ambient		R_{thA}	-	-	200 ¹⁾	K/W

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.



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