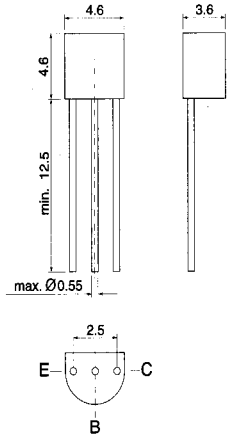
HN / 2N 5400/5401

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°C)

		Symbol	Value	Unit
Collector-Emitter Voltage	**HN / 2N 5400**	$-V_{CEO}$	120	V
	HN / 2N 5401	$-V_{CEO}$	150	V
Collector-Base Voltage	**HN / 2N 5400**	$-V_{CBO}$	130	V
	HN / 2N 5401	$-V_{CBO}$	160	V
Emitter Base Voltage		$-V_{EBO}$	5	V
Collector Current		$-I_C$	600	mA
Power Dissipation at T_{amb} = 25 °C		P_{tot}	625[1)]	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	-55 to + 150	°C

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

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Characteristics at T_{amb} =25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain.						
at $-V_{CE}$ = 5V, $-I_C$ = 1 mA	**HN / 2N 5400**	h_{FE}	30	-	-	-
	HN / 2N 5401	h_{FE}	50	-	-	-
at $-V_{CE}$ = 5V, $-I_C$ = 10 mA	**HN / 2N 5400**	h_{FE}	40	-	180	-
	HN / 2N 5401	h_{FE}	60	-	240	-
at $-V_{CE}$ = 5V, $-I_C$ = 50 mA	**HN / 2N 5400**	h_{FE}	40	-	-	-
	HN / 2N 5401	h_{FE}	50	-	-	-
Collector Emitter Breakdown Voltage						
at $-I_C$ = 1 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 µA	**HN / 2N 5400**	$-V_{(BR)CBO}$	130	-	-	V
	HN / 2N 5401	$-V_{(BR)CBO}$	160	-	-	V
Emitter Base Breakdown Voltage						
at $-I_E$ = 10 µA		$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current						
at $-V_{CB}$ = 100 V	**HN / 2N 5400**	$-I_{CBO}$	-	-	100	nA
at $-V_{CB}$ = 120 V	**HN / 2N 5401**	$-I_{CBO}$	-	-	50	nA
Emitter Cutoff Current						
at $-V_{EB}$ = 3 V		$-I_{EBO}$	-	-	50	nA
Collector Saturation Voltage						
at $-I_C$ = 10 mA, $-I_B$ = 1 mA		$-V_{CE\ sat}$	-	-	0.2	V
at $-I_C$ = 50 mA, $-I_B$ = 5 mA		$-V_{CE\ sat}$	-	-	0.5	V
Base Saturation Voltage						
at $-I_C$ = 10 mA, $-I_B$ = 1 mA		$-V_{BE\ sat}$	-	-	1	V
at $-I_C$ = 50 mA, $-I_B$ = 5 mA		$-V_{BE\ sat}$	-	-	1	V
Gain Bandwidth Product						
at $-V_{CE}$ = 10 V, $-I_C$ = 10 mA, f = 100MHz						
	HN / 2N 5400	f_T	100	-	400	MHz
	HN / 2N 5401	f_T	100	-	400	MHz
Collector Base Capacitance		C_{CBO}	-	-	6	pF
at $-V_{CB}$ = 10 V, f = 1MHz						
Noise Figure						
at $-V_{CE}$ = 5 V, $-I_C$ = 200 µA, R_G = 2kΩ, f = 30 H_Z... 15KH_Z		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.