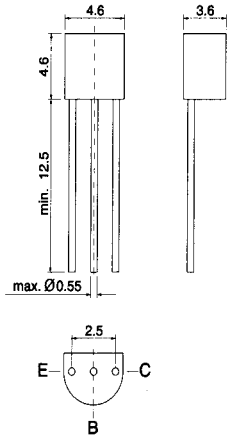
HN / 2N 5550/5551

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

As complementary types the PNP transistors 2N5400 and 2N5401 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 5550**	V_{CEO}	140	V
	HN / 2N 5551	V_{CEO}	160	V
Collector-Base Voltage	**HN / 2N 5550**	V_{CBO}	160	V
	HN / 2N 5551	V_{CBO}	180	V
Emitter Base Voltage		V_{EBO}	6	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 5550**	h_{FE}	60	-	-	-
	HN / 2N 5551	h_{FE}	80	-	-	-
at V_{CE} = 5V, I_C = 10 mA	**HN / 2N 5550**	h_{FE}	60	-	250	-
	HN / 2N 5551	h_{FE}	80	-	250	-
at V_{CE} = 5V, I_C = 50 mA	**HN / 2N 5550**	h_{FE}	20	-	-	-
	HN / 2N 5551	h_{FE}	30	-	-	-
Collector Emitter Breakdown Voltage						
at I_C = 1 mA	**HN / 2N 5550**	$V_{(BR)CEO}$	140	-	-	V
	HN / 2N 5551	$V_{(BR)CEO}$	160	-	-	V
Collector Base Breakdown Voltage						
at I_C = 100 µA	**HN / 2N 5550**	$V_{(BR)CBO}$	160	-	-	V
	HN / 2N 5551	$V_{(BR)CBO}$	180	-	-	V
Emitter Base Breakdown Voltage						
at I_E = 10 µA		$V_{(BR)EBO}$	6	-	-	V
Collector Cutoff Current						
at V_{CB} = 100 V	**HN / 2N 5550**	I_{CBO}	-	-	100	nA
at V_{CB} = 120 V	**HN / 2N 5551**	I_{CBO}	-	-	50	nA
Emitter Cutoff Current						
at V_{EB} = 4 V		I_{EBO}	-	-	50	nA
Collector Saturation Voltage						
at I_C = 10 mA, I_B = 1 mA		$V_{CE\ sat}$	-	-	0.15	V
at I_C = 50 mA, I_B = 5 mA	**HN / 2N 5550**	$V_{CE\ sat}$	-	-	0.25	V
	HN / 2N 5551	$V_{CE\ sat}$	-	-	0.2	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	**HN / 2N 5550**	$V_{BE\ sat}$	-	-	1.2	V
	HN / 2N 5551	$V_{BE\ sat}$	-	-	1	V
Gain Bandwidth Product at V_{CE} = 10 V, I_C = 10 mA, f = 100MHz		f_T	100	-	300	MHz
Collector Base Capacitance at V_{CB} = 10 V, f = 1MHz		C_{CBO}	-	-	6	pF
Noise Figure at V_{CE} = 5 V, I_C = 200 µA, R_G = 2kΩ, f = 30 Hz ... 15 kHz	**HN / 2N 5550**	F	-	-	10	dB
	HN / 2N 5551	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.