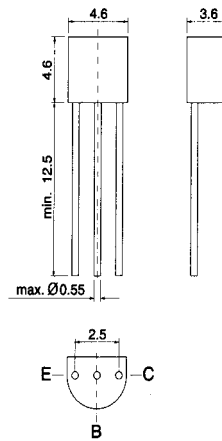


HN / 2N 5550/5551

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.



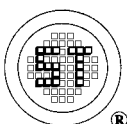
TO-92 Plastic Package
Weight approx. 0.18 g
Dimensions in mm

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

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

G S P FORM A AVAILABLE



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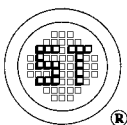


HN / 2N 5550/5551

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



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