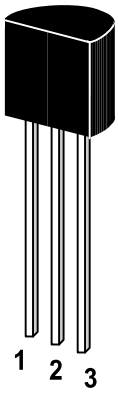
ST 2N5550 / 2N5551

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

As complementary types the PNP transistors ST 2N5400 and ST 2N5401 are recommended.

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



1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25°C)

		Symbol	Value	Unit
Collector Emitter Voltage	ST 2N5550	V_{CEO}	140	V
	ST 2N5551	V_{CEO}	160	V
Collector Base Voltage	ST 2N5550	V_{CBO}	160	V
	ST 2N5551	V_{CBO}	180	V
Emitter Base Voltage		V_{EBO}	6	V
Collector Current		I_C	600	mA
Power Dissipation		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

Characteristics at T_{amb}=25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE}=5V, I_C=1mA	ST 2N5550	h_{FE}	60	-	-	-
	ST 2N5551	h_{FE}	80	-	-	-
at V_{CE}=5V, I_C=10mA	ST 2N5550	h_{FE}	60	-	250	-
	ST 2N5551	h_{FE}	80	-	250	-
at V_{CE}=5V, I_C=50mA	ST 2N5550	h_{FE}	20	-	-	-
	ST 2N5551	h_{FE}	30	-	-	-
Collector Emitter Breakdown Voltage						
at I_C=1mA	ST 2N5550	$V_{(BR)CEO}$	140	-	-	V
	ST 2N5551	$V_{(BR)CEO}$	160	-	-	V
Collector Base Breakdown Voltage						
at I_C=100μA	ST 2N5550	$V_{(BR)CBO}$	160	-	-	V
	ST 2N5551	$V_{(BR)CBO}$	180	-	-	V
Emitter Base Breakdown Voltage						
at I_E=10μA		$V_{(BR)EBO}$	6	-	-	V
Collector Cutoff Current						
at V_{CB}=100V	ST 2N5550	I_{CBO}	-	-	100	nA
at V_{CB}=120V	ST 2N5551	I_{CBO}	-	-	50	nA
Emitter Cutoff Current						
at V_{EB}=4V		I_{EBO}	-	-	50	nA
Collector Saturation Voltage						
at I_C=10mA, I_B=1mA		$V_{CE\ sat}$	-	-	0.15	V
at I_C=50mA, I_B=5mA	ST 2N5550	$V_{CE\ sat}$	-	-	0.25	V
	ST 2N5551	$V_{CE\ sat}$	-	-	0.2	V
Base Saturation Voltage						
at I_C=10mA, I_B=1mA		$V_{BE\ sat}$	-	-	1	V
at I_C=50mA, I_B=5mA	ST 2N5550	$V_{BE\ sat}$	-	-	1.2	V
	ST 2N5551	$V_{BE\ sat}$	-	-	1	V
Gain Bandwidth Product						
at V_{CE}=10V, I_C=10mA, f=100MHz		f_T	100	-	300	MHz
Collector Base Capacitance						
at V_{CB}=10V, f=1MHz		C_{CBO}	-	-	6	pF
Noise Figure						
at V_{CE}=5V, I_C=200μA, R_G=2kΩ,	ST 2N5550	NF	-	-	10	dB
f=30H_Z…15kH_Z	ST 2N5551	NF	-	-	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.