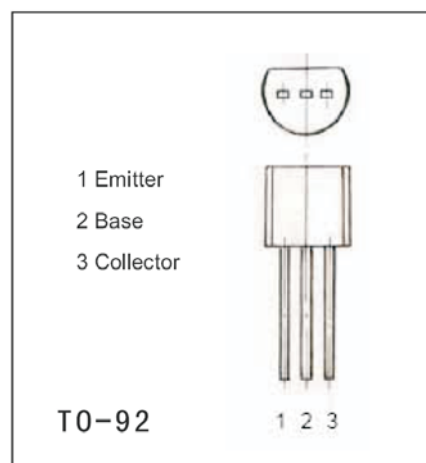


NPN Transistors

2N5551

■ Features

- Switching and amplification in high voltage
- Applications such as telephony
- Low current(max. 600mA)
- High voltage(max.180V)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	180	V
Collector-emitter voltage	V _{CEO}	160	V
Emitter-base voltage	V _{EBO}	6	V
Collector current-continuous	I _c	0.6	A
Collector Power Dissipation	P _c	625	mW
Junction and storage temperature	T _J , T _{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _c = 100 μA, I _E = 0	180			V
Collector-emitter breakdown voltage *	V _{CEO}	I _c = 1.0 mA, I _B = 0	160			V
Emitter-base breakdown voltage	V _{EBO}	I _E = 10 μA, I _c = 0	6			V
Collector cutoff current	I _{cBO}	V _{CB} = 120 V, I _E = 0			50	nA
Emitter cutoff current	I _{EBO}	V _{EB} = 4.0 V, I _c = 0			50	nA
DC current gain *	h _{FE}	I _c = 1.0 mA, V _{CE} = 5 V	80			V
		I _c = 10 mA, V _{CE} = 5 V	80		250	
		I _c = 50 mA, V _{CE} = 5 V	30			
Collector-emitter saturation voltage *	V _{CE(sat)}	I _c = 10 mA, I _B = 1 mA			0.15	V
		I _c = 50 mA, I _B = 5mA			0.2	
Base-emitter saturation voltage *	V _{BE(sat)}	I _c = 10 mA, I _B = 1 mA			1.0	V
		I _c = 50 mA, I _B = 5 mA			1.0	
Transiston frequency	f _T	V _{CE} =10V, I _c =10mA, f=100MHz	100		300	MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz			6	pF
Input capacitance	C _{ib}	V _{BE} =0.5V, I _c =0, f=1MHz			20	pF
Noise figure	NF	V _{CE} =5V, I _c =0.25mA, f=10Hz to 15.7KHz, R _s =1kΩ			8	dB

* Pulse Test: Pulse Width = 300 μs, Duty Cycle=2.0%.