2N5551

TO-92 Plastic-Encapsulate Transistors

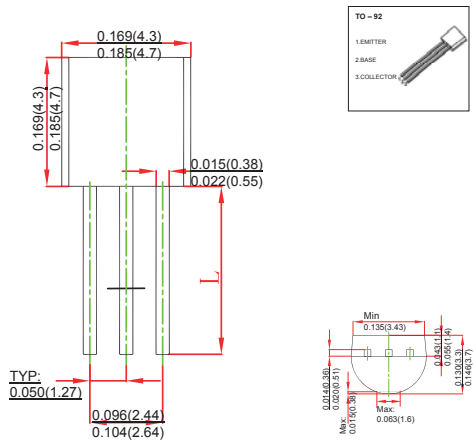
Features

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

MECHANICAL DATA

- Case style:TO-92 molded plastic
- Mounting position:any

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	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	Pc	625	mW
Junction and storage temperature	T_J, T_{stg}	-55 to +150	℃

PACKAGE INFORMATION

Device	Package	Shipping
2N5401	TO-92	2000/Tape&Reel

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	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			
		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%.