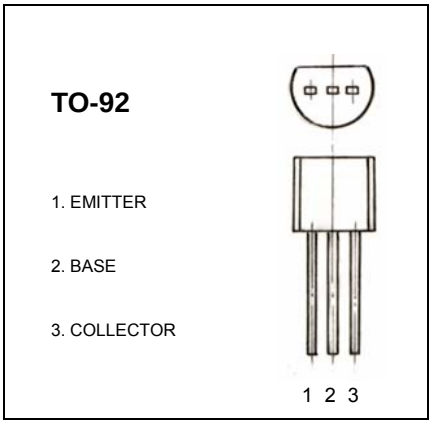
KEEN SIDE electronics

2N5551

TRANSISTOR (NPN)



FEATURES

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

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	0.6	A
P_C	Collector Power Dissipation	0.625	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS(Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= 1mA, I_B=0	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 10μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}= 120V, I_E=0			50	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V, I_C=0			50	nA
DC current gain	h_{FE1}*	V_{CE}=5V, I_C=1mA	80			
	h_{FE2}*	V_{CE}=5V, I_C =10mA	80		250	
	h_{FE3}	V_{CE}=5V, I_C=50mA	30			
Collector-emitter saturation voltage	V_{CEsat}*	I_C=10mA, I_B=1mA			0.15	V
		I_C=50mA, I_B=5mA			0.2	
Base-emitter saturation voltage	V_{BEsat}*	I_C=10mA, I_B= 1mA			1	V
		I_C=50mA, I_B= 5mA			1	
Transition 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,Rs=1kΩ			8	dB