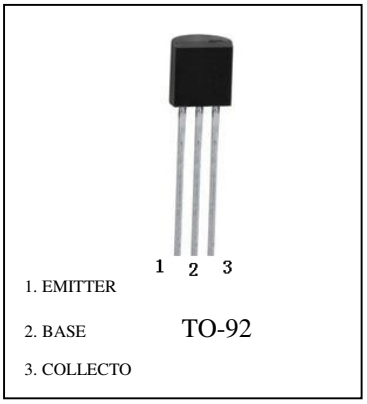
FEATURES

2N5551 (NPN)

for general purpose, high volt
As complementary types the PNP transistors 2N5401 are recommended.
Low current(max. 600mA),High voltage(max.180V)



MARKING:2N5551

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	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	600	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=100 A,I_E=0	180			V
Collector-emitter breakdown voltage	V_{CEO}	I_C= 1mA, I_B=0	160			V
Emitter-base breakdown voltage	V_{EBO}	I_E= 10 A, 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	100		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.15	V
		I_C=50mA, I_B=5mA			0.2	
Base-emitter saturation voltage	$V_{BE(sat)}$	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_{obo}	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	N_F	V_{CE}=5V,Ic=0.25mA, f=10Hz to 15.7KHz,Rs=1k			8	dB

CLASSIFICATION OF HFE

Rank	A	B	C
Range	100-150	150-200	200-300

2N5551 Typical Characteristics

Fig. 1 P_C-T_a

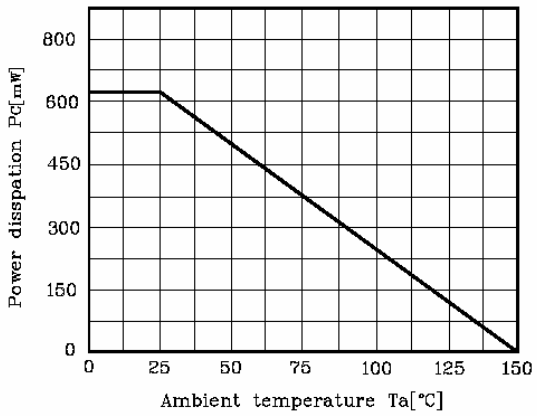


Fig. 2 I_C - V_{BE}

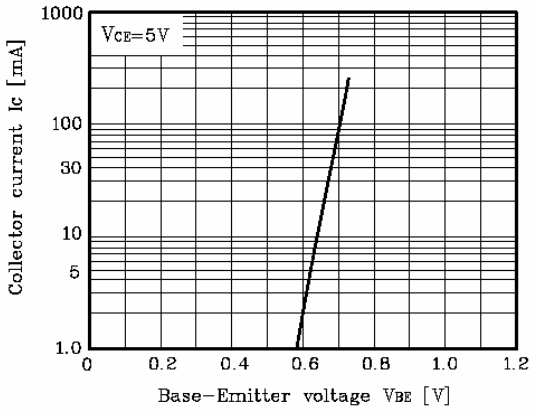


Fig. 3 f_T - I_C

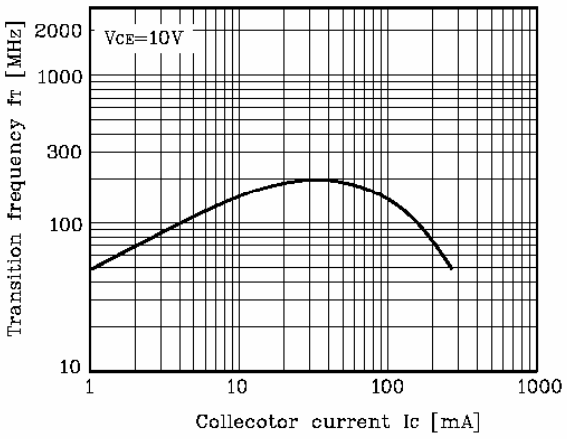


Fig. 4 $V_{CE(sat)}$, $V_{BE(sat)}$ - I_C

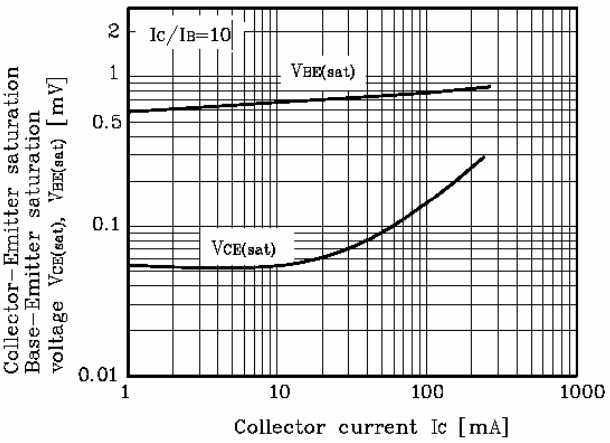


Fig. 5 C_{ob} - V_{CB}