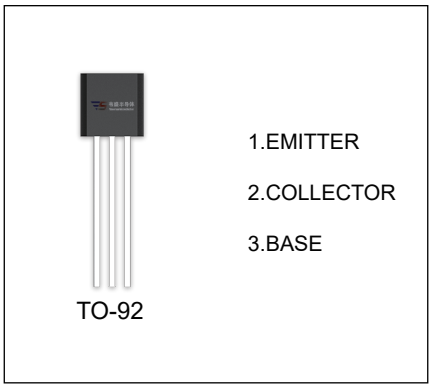
2SC2001 TRANSISTOR (NPN)



FEATURES

- High h_{FE} and Low $V_{CE(sat)}$
  $h_{FE}(I_C$=100mA) : 200(Typ)
  $V_{CE(sat)}$(700mA): 0.2V (Typ)

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SC2001	TO-92	Bulk	1000pcs/Bag
2SC2001-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS(T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	700	mA
P_C	Collector Power Dissipation	600	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

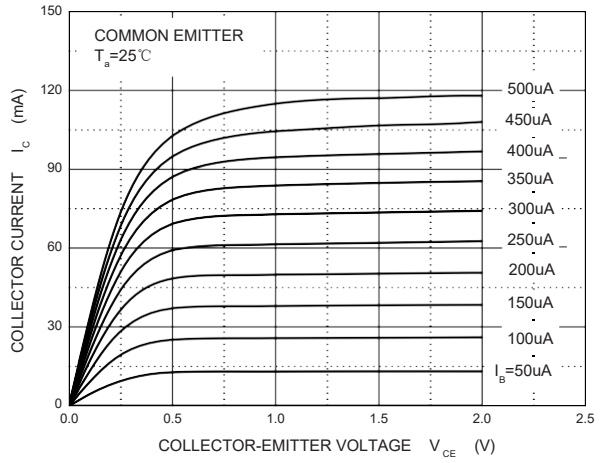
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA , I_B=0	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0 5			V
Collector cut-off current	I_{CBO}	V_{CB}=30 V, I_E=0		0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=20 V, I_B=0		0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5 V, I_C=0		0.1	μA
DC current gain	h_{FE}	V_{CE}=1V, I_C=100mA 90		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=700mA, I_B= 70mA		0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 700mA, I_B=70mA		1.2	V
Transition frequency	f_T	V_{CE}=6V, I_C= 10mA f = 30MHz	50		MHz

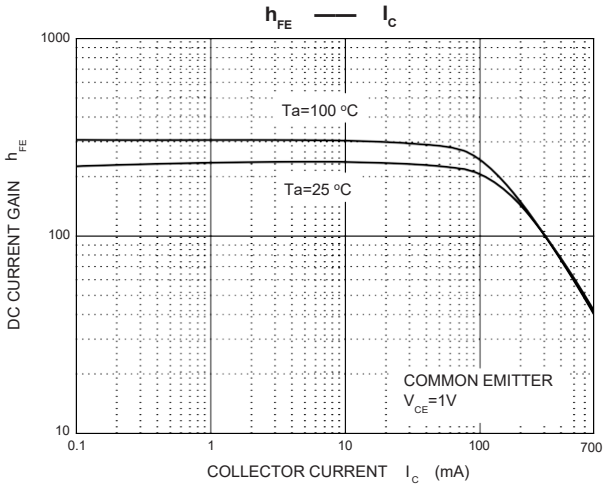
CLASSIFICATION OF h_{FE}

Rank	M	L	K
Range	90-180 135-	270	200-400

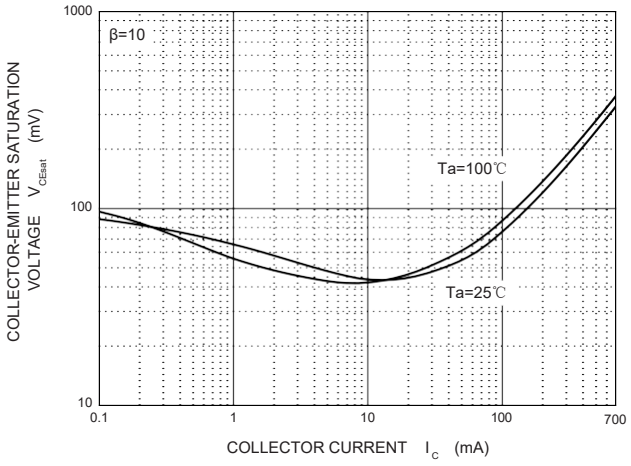
Static Characteristic



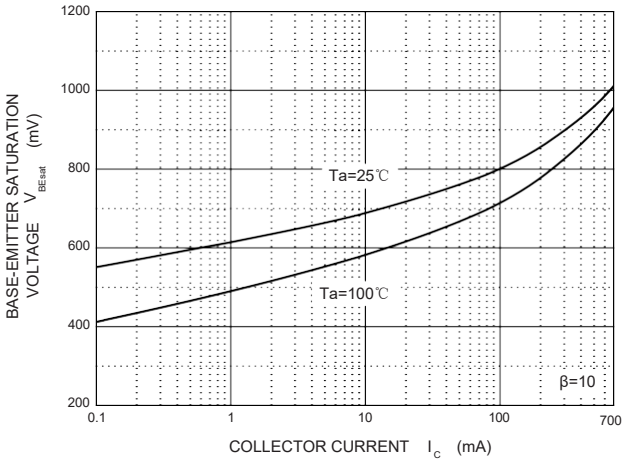
h_{FE} — I_C



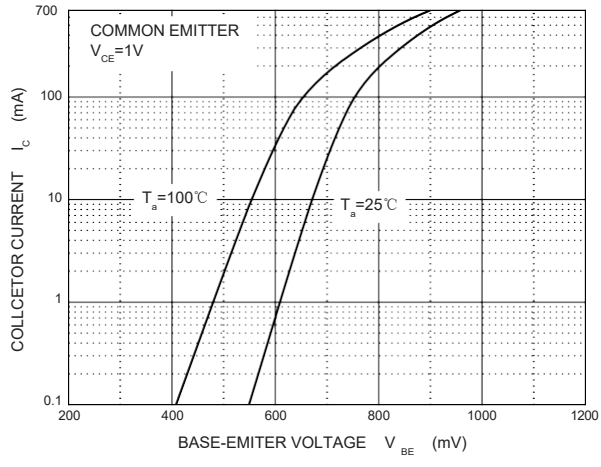
V_{CEsat} — I_C



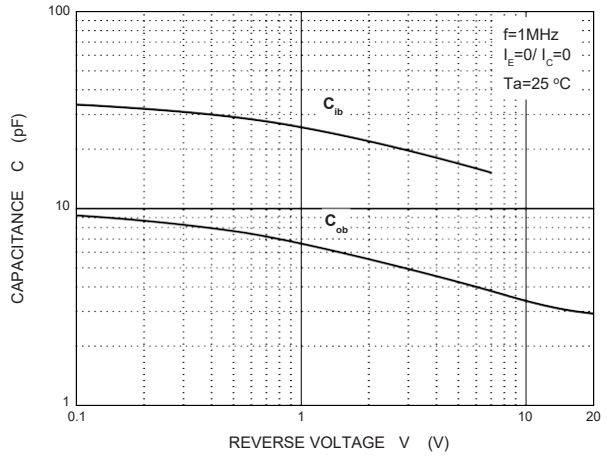
V_{BEsat} — I_C



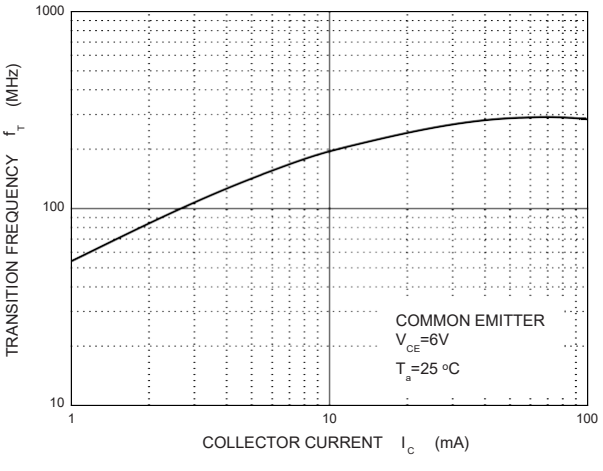
I_C — V_{BE}



C_{ob} / C_{ib} — V_{CB} / V_{EB}



f_T — I_C



Pc — Ta