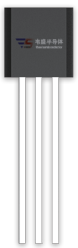
8050S TRANSISTOR (NPN)

FEATURES

- Complimentary to 8550S
- Collector Current: I_C=0.5A



TO-92

1.EMITTER
2.COLLECTOR
3.BASE

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
8050S	TO-92	Bulk	1000pcs/Bag
8050S-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.5	A
P_C	Collector Power Dissipation	0.625	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

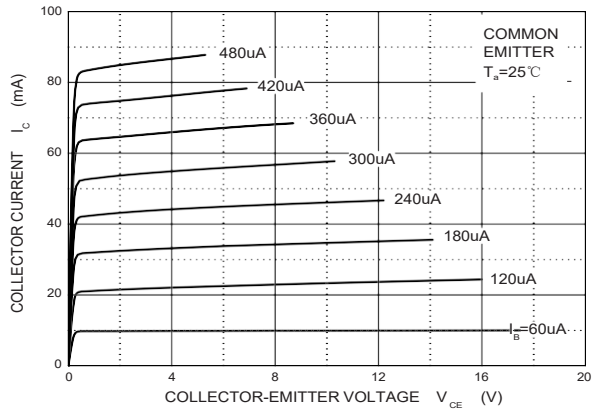
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 100μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 0.1mA, 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}= 40 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}= 5V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}= 1V, I_C= 50mA	85		400	
	$h_{FE(2)}$	V_{CE}= 1V, I_C= 500mA	50			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=500mA, I_B=50mA			0.6	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=500mA, I_B=50mA			1.2	V
Transition frequency	f_T	V_{CE}= 6V, I_C=20mA f =30MHz	150			MHz

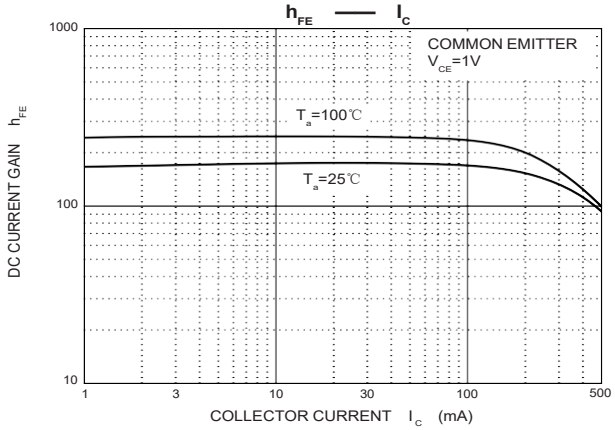
CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D	D3
Ra nge	85-160	120-200	160-300	300-400

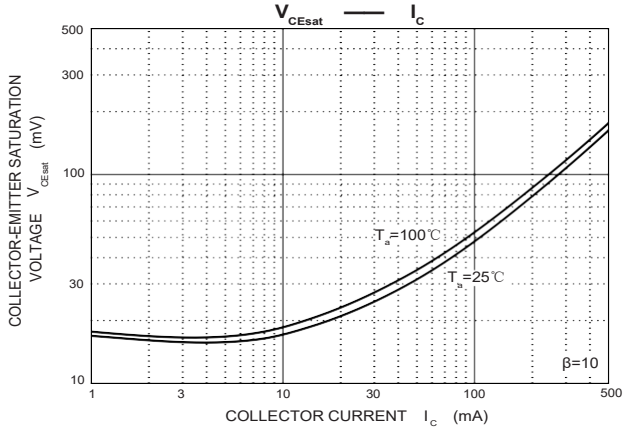
Static Characteristic



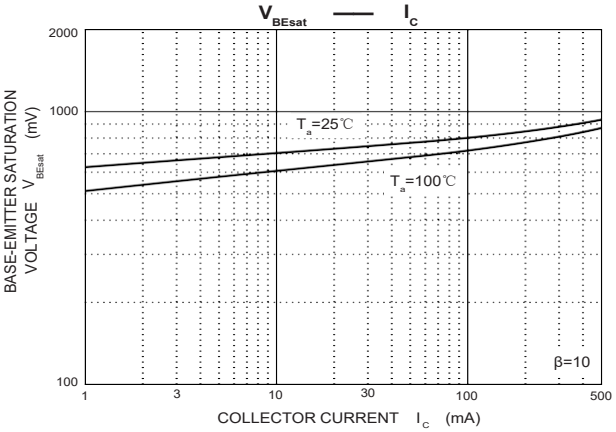
h_{FE} —— I_C



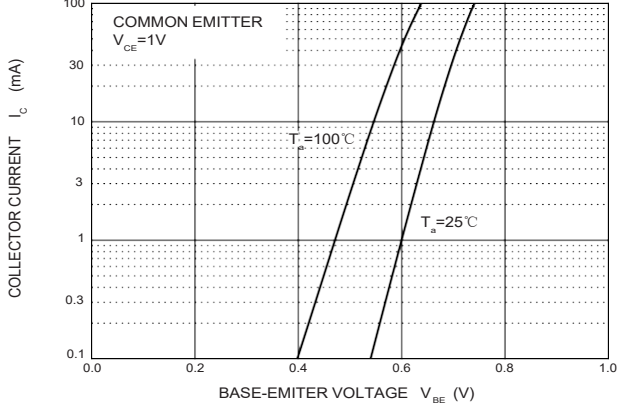
V_{CEsat} —— I_C



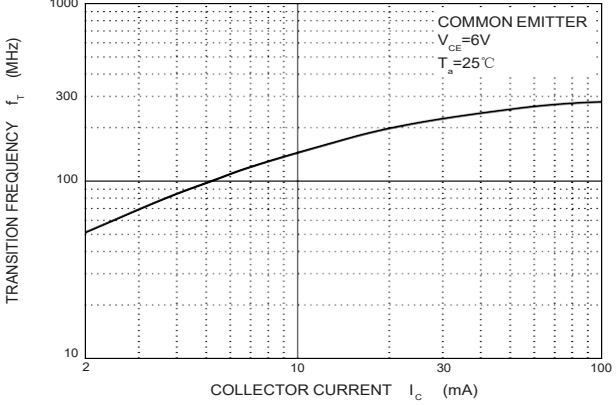
V_{BEsat} —— I_C



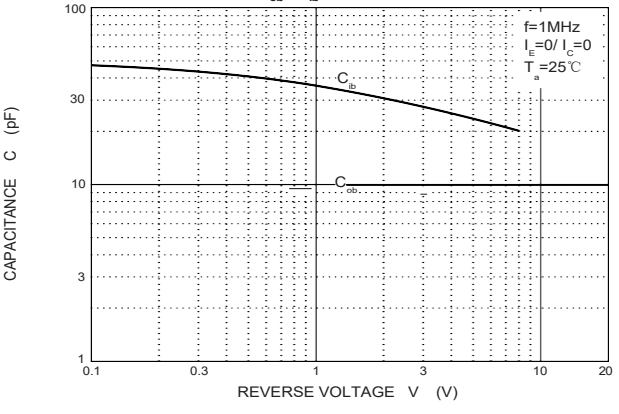
I_C —— V_{BE}



f_T —— I_C



C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



P_C —— T_a