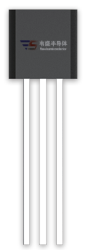
SS8050 TRANSISTOR (NPN)



1.EMITTER

2.COLLECTOR

3.BASE

TO-92

FEATURES

- Power Dissipation

  P_{CM} : 1 W (T$_a$=25℃)

  : 2 W (T$_c$=25℃)

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
SS8050	TO-92	Bulk	1000pcs/Bag
SS8050-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

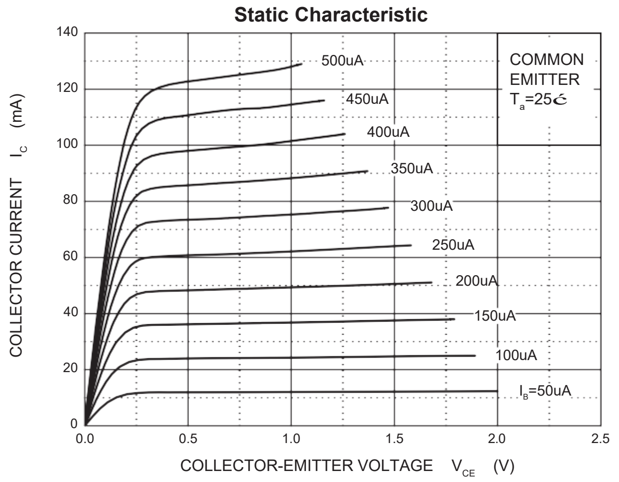
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1.5	A
P_D	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

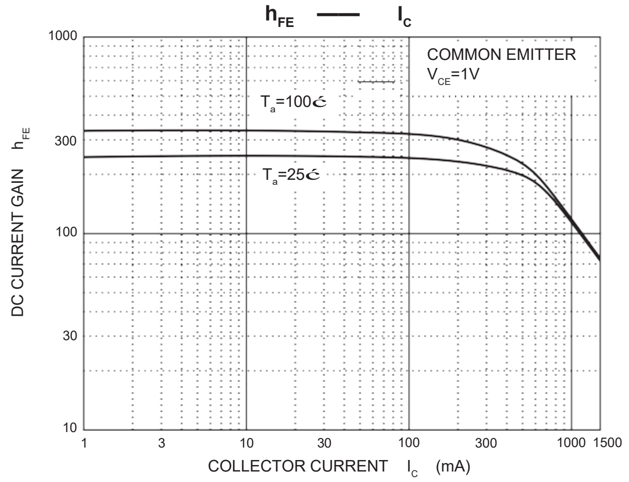
T_a=25℃ unless otherwise specified

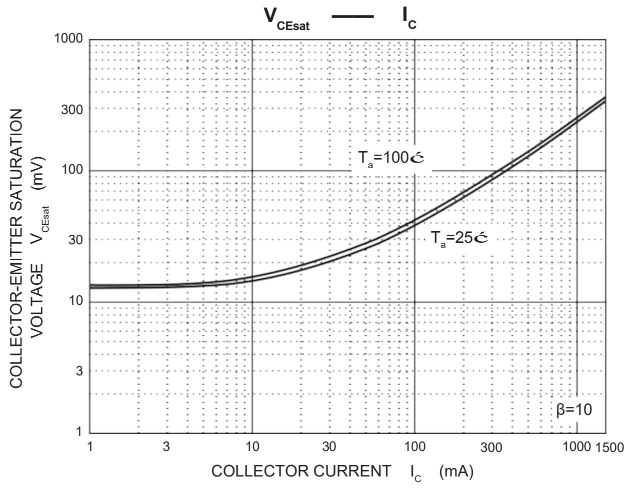
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100uA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=0.1mA, I_B=0	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=40V, I_E=0			0.1	μA
Emitter cut-off current	I_{CEO}	V_{CE}=20V, I_E=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=100mA	85		400	
	$h_{FE(2)}$	V_{CE}=1V, I_C=800mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=800mA, I_B=80mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=800mA, I_B=80mA			1.2	V
Base-emitter voltage	V_{BE}	V_{CE}=1V, I_C=10mA			1	V
Transition frequency	f_T	V_{CE}=10V, I_C=50mA,f=30MHz	100			MHz

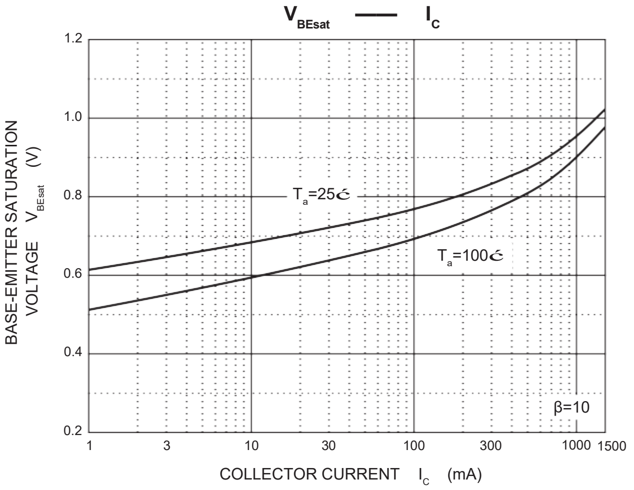
CLASSIFICATION OF $h_{FE(1)}$

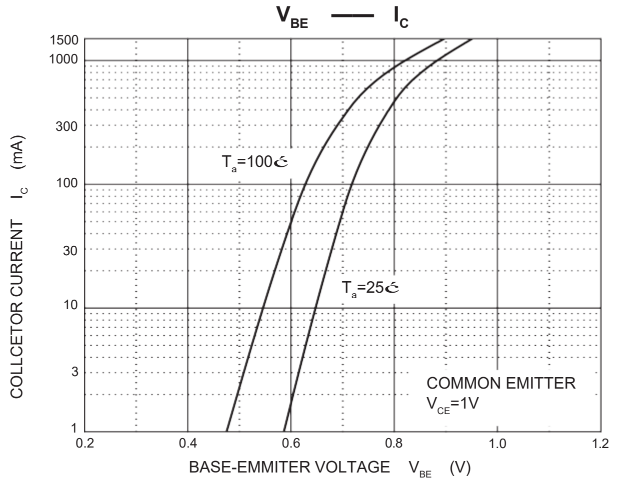
Rank	B	C	D	D3
Range	85-160	120-200	160-300	300-400

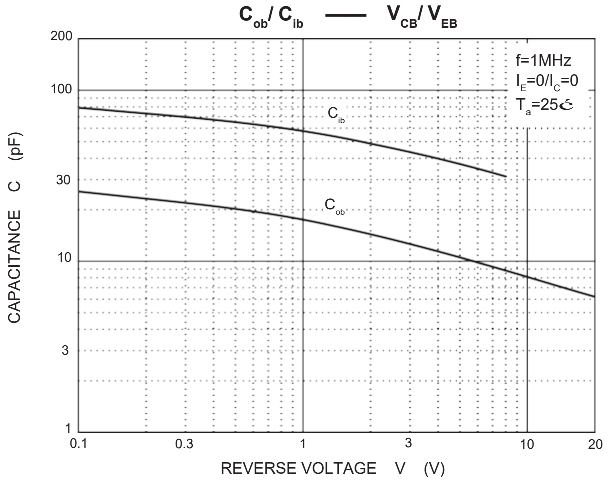

Static Characteristic

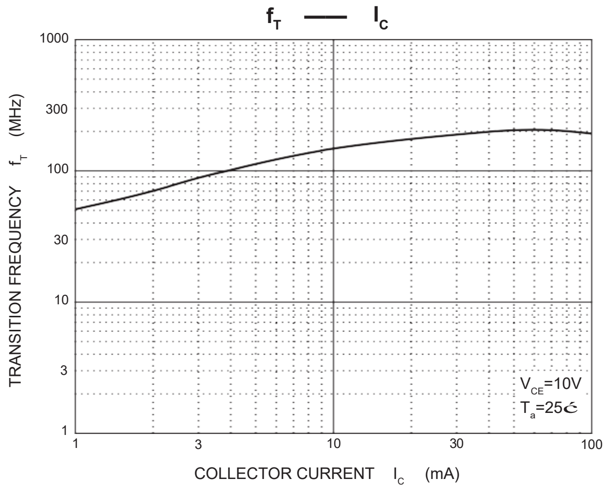

h_{FE} — I_C

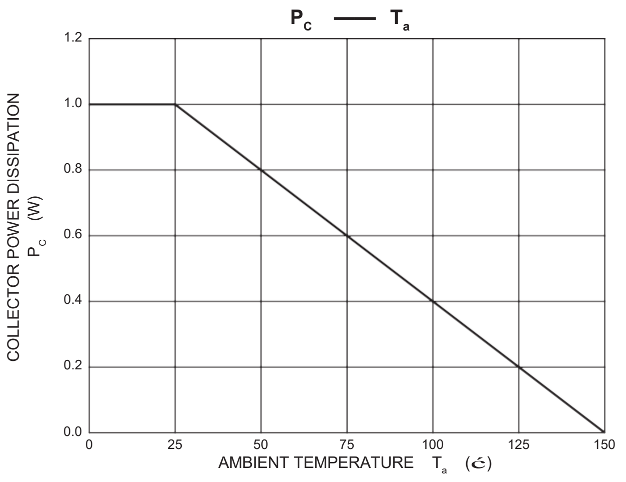

V_{CEsat} — I_C


V_{BEsat} — I_C


V_{BE} — I_C


C_{ob}/ C_{ib} — V_{CB}/ V_{EB}


f_T — I_C


P_C — T_a