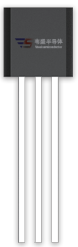
SS8550 TRANSISTOR (PNP)



1.EMITTER
2.COLLECTOR
3.BASE

TO-92

FEATURES

- Power dissipation
  P_C : 1 W (T_a=25℃)

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
SS8550	TO-92	Bulk	1000pcs/Bag
SS8550-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

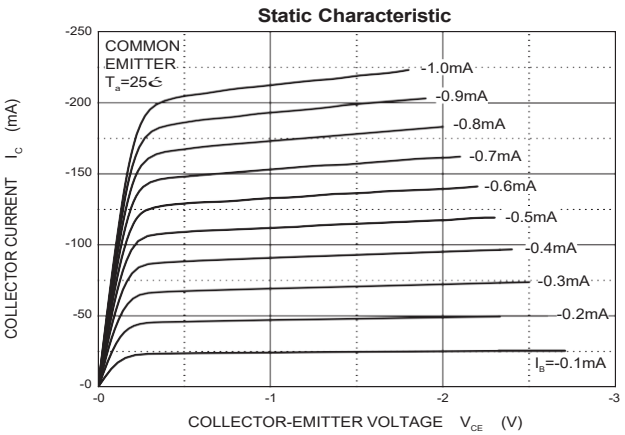
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1.5	A
P_D	Collector Power Dissipation	1000	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	125	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

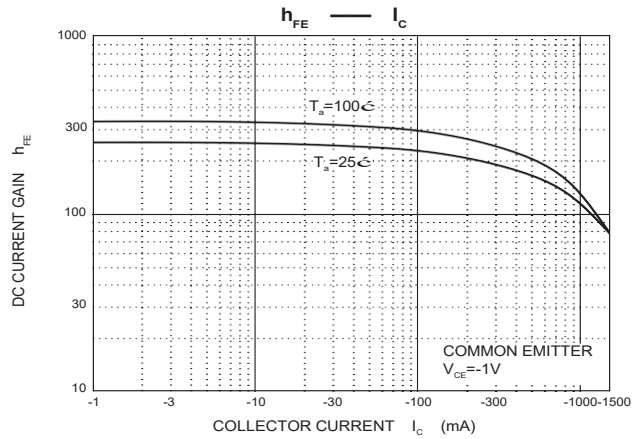
T_a=25℃ unless otherwise specified

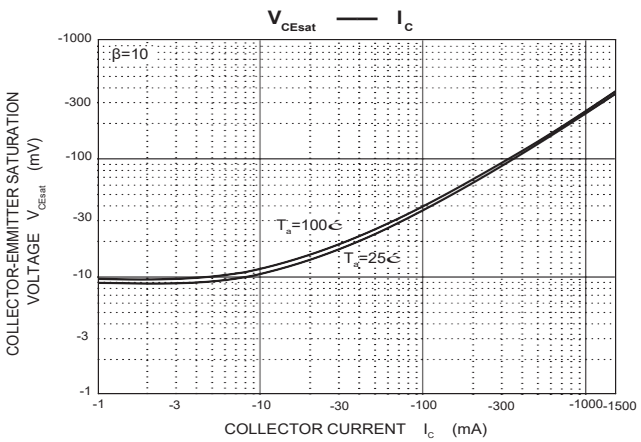
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100uA, I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-0.1mA, I_B=0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	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	uA
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	$V_{BE(on)}$	V_{CE}=-1V, I_C=-10mA			-1	V
Out capacitance	Co_b	V_{CB}=-10V, I_E=0mA,f=1MH_Z			20	pF
Transition frequency	f_T	V_{CE}=-10V, I_C=-50mA,f=30MH_Z	100			MHz

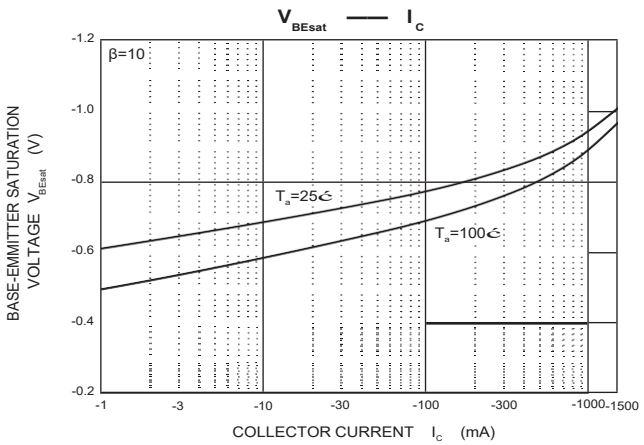
CLASSIFICATION OF $h_{FE(1)}$

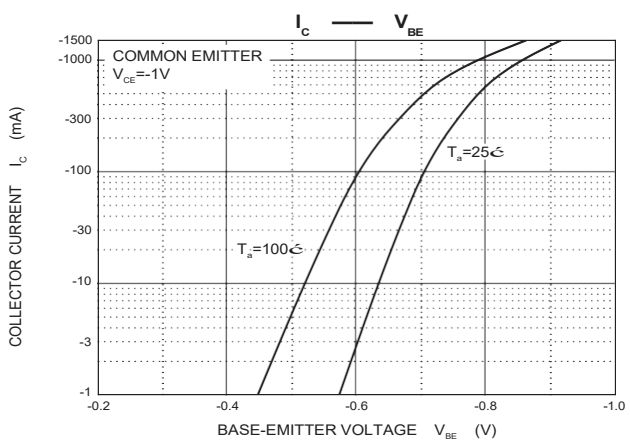
Rank	B	C	D	D3
Range	85-160	120-200	160-300	300-400

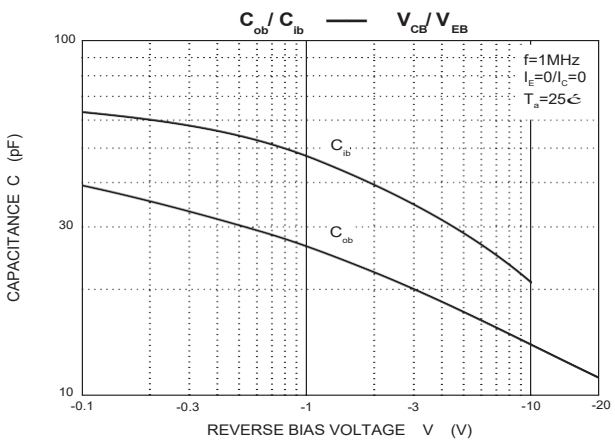

Static Characteristic
COMMON EMITTER
Ta=25℃
-1.0mA
-0.9mA
-0.8mA
-0.7mA
-0.6mA
-0.5mA
-0.4mA
-0.3mA
-0.2mA
IB=-0.1mA
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)

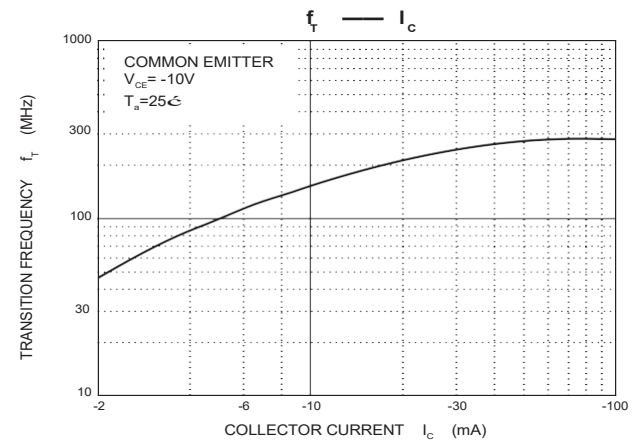

hFE — IC
Ta=100℃
Ta=25℃
COMMON EMITTER
VCE=-1V
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)

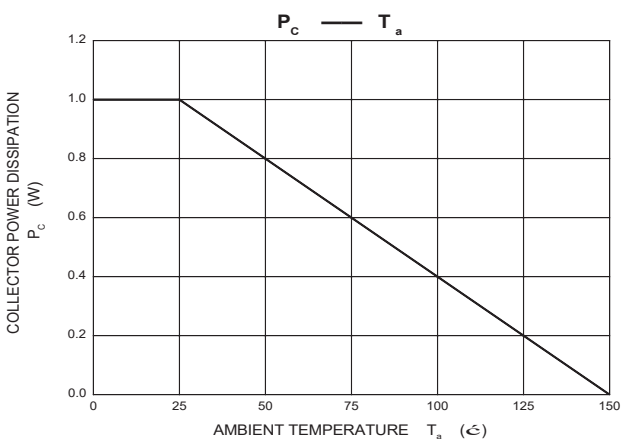

VCEsat — IC
β=10
Ta=100℃
Ta=25℃
COLLECTOR-EMMITTER SATURATION VOLTAGE VCEsat (mV)
COLLECTOR CURRENT IC (mA)


VBEsat — IC
β=10
Ta=25℃
Ta=100℃
BASE-EMMITTER SATURATION VOLTAGE VBEsat (V)
COLLECTOR CURRENT IC (mA)


IC — VBE
COMMON EMITTER
VCE=-1V
Ta=25℃
Ta=100℃
COLLECTOR CURRENT IC (mA)
BASE-EMITTER VOLTAGE VBE (V)


Cob / Cib — VCB / VEB
f=1MHz
IE=0/IC=0
Ta=25℃
Cib
Cob
CAPACITANCE C (pF)
REVERSE BIAS VOLTAGE V (V)


fT — IC
COMMON EMITTER
VCE= -10V
Ta=25℃
TRANSITION FREQUENCY fT (MHz)
COLLECTOR CURRENT IC (mA)


PC — Ta
COLLECTOR POWER DISSIPATION PC (W)
AMBIENT TEMPERATURE Ta (℃)