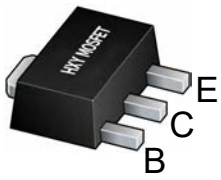
SS8550

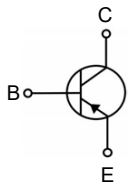
PNP Plastic-Encapsulate Transistors

Features

- Collector Current: I_C=-1.5A
- Power Dissipation of 500mw



SOT89-3L



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
SS8550	SOT89-3L	Y2	1000

Maxmim Ratings (Ta=25℃ unless otherwise noted)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-25	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1.5	A
Collector Power Dissipation	P_C	500	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	250	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature	T_{stg}	-55～+150	℃

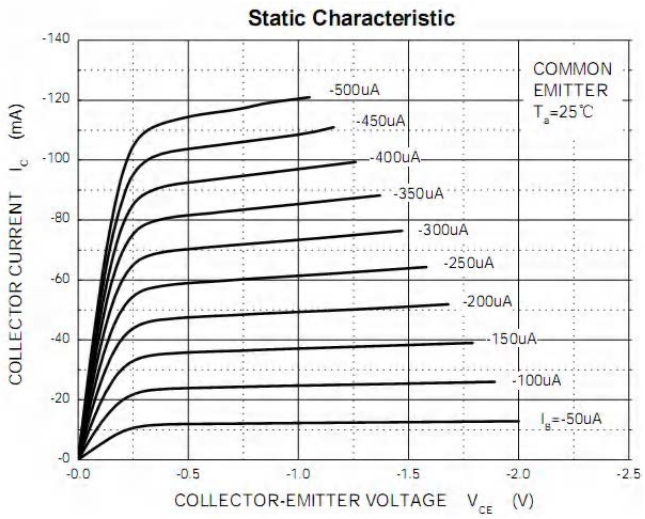
Classifiction Of h_{FE}

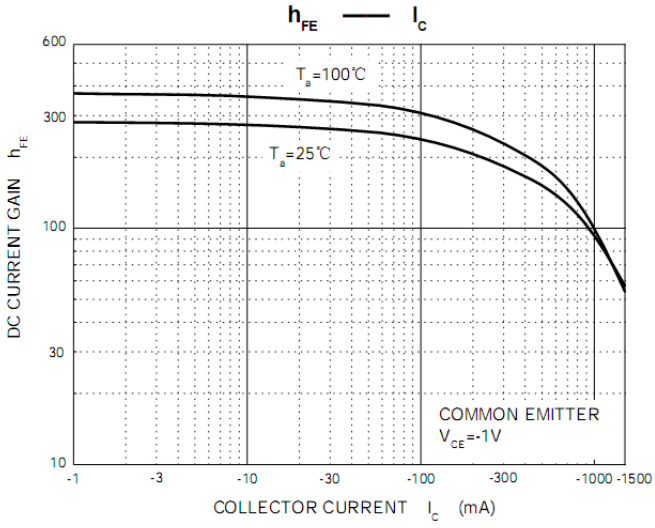
Rank	L	H	J
Range	120–200	200–350	300–400
Marking	Y2		

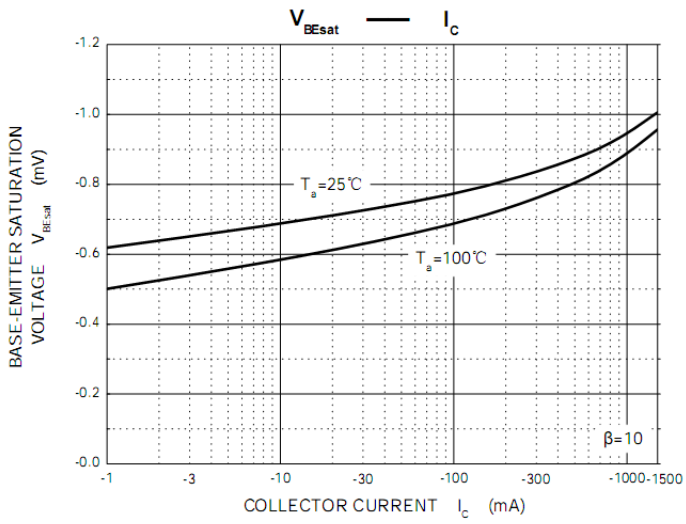
Electrcal Charcteristics (T_a=25℃ unless otherwise specified)

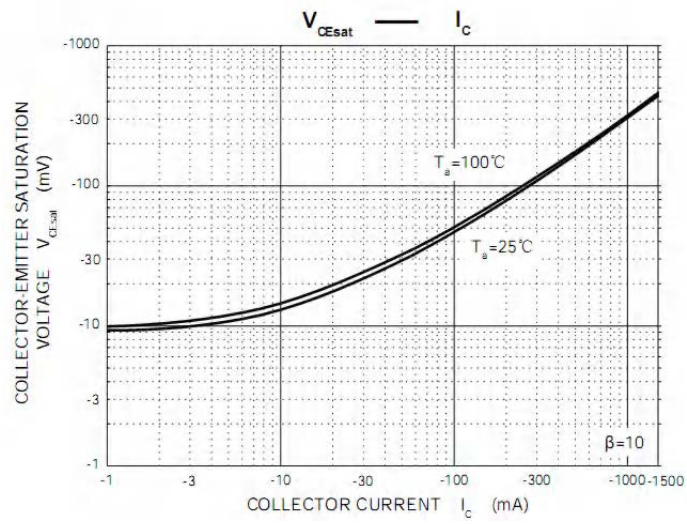
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100μA, I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -0.1mA, I_B=0	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}= -40 V,I_E=0		-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -20V, 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= -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 on voltage	$V_{BE(on)}$	Ic=-1V,V_{CE}=-10mA		-1	V
Base-emitter positive favor voltage	V_{BEF}	I_B=-1A		-1.55	V
Transition frequency	f_T	V_{CE}= -10V, I_C= -50mA	100		MHz
output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz		20	pF

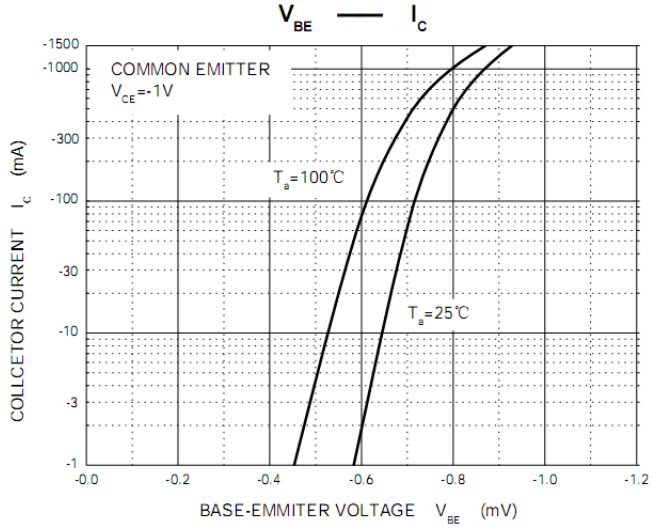
Typical Characteristics

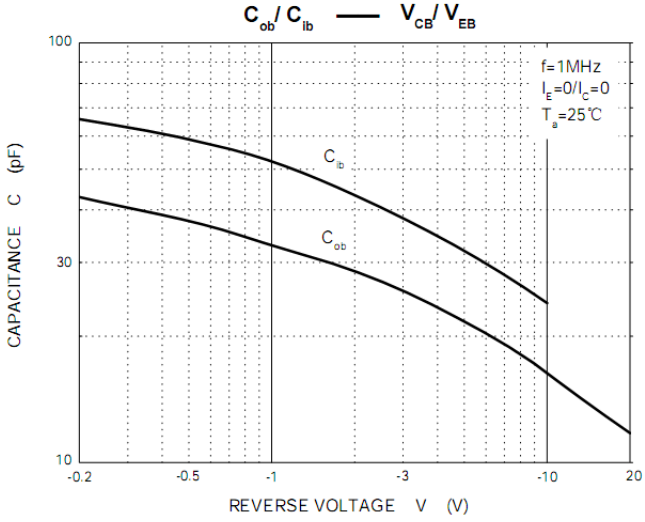


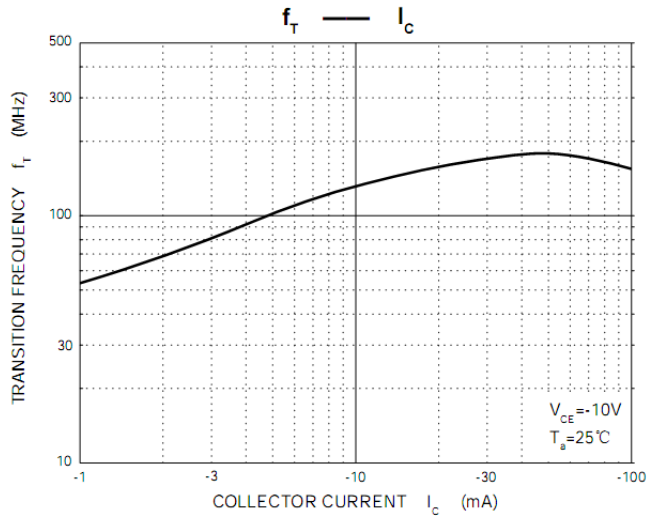


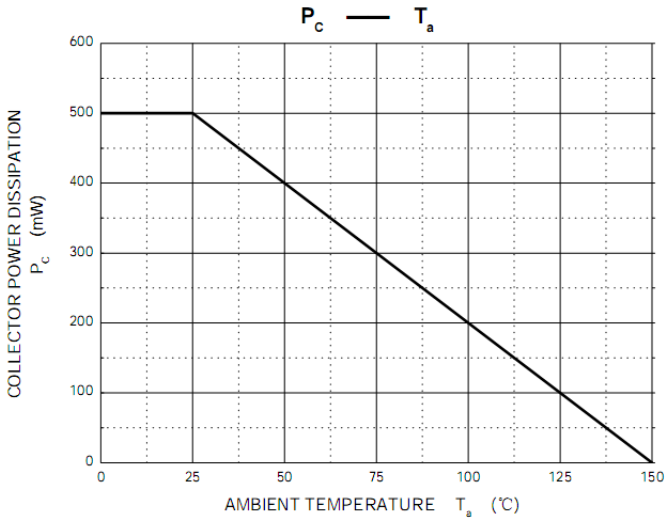

V_{BEsat} — I_C
BASE-EMITTER SATURATION VOLTAGE V_{BE-sat} (mV)
-1.2
-1.0
-0.8
-0.6
-0.4
-0.2
-0.0
T_a=25℃
T_a=100℃
β=10
-1
-3
-10
-30
-100
-300
-1000-1500
COLLECTOR CURRENT I_C (mA)


V_{CEsat} — I_C
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CE-sat} (mV)
-1000
-300
-100
-30
-10
-3
-1
T_a=100℃
T_a=25℃
β=10
-1
-3
-10
-30
-100
-300
-1000-1500
COLLECTOR CURRENT I_C (mA)

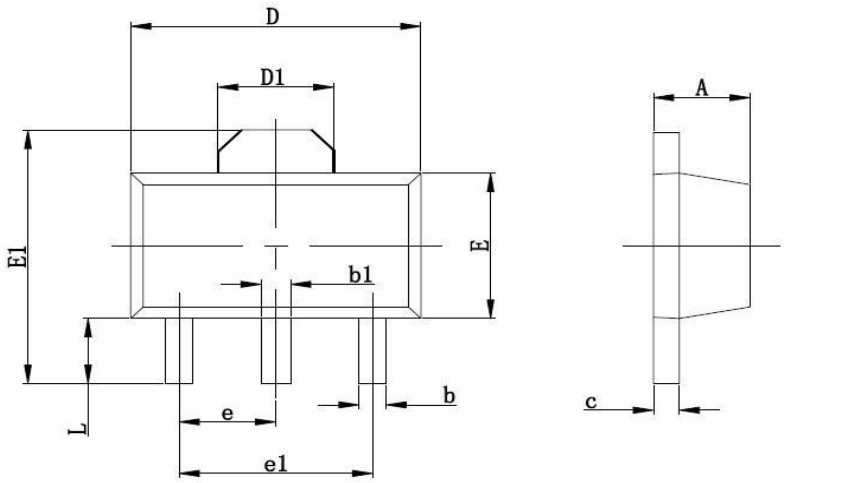

V_{BE} — I_C
COLLCETOR CURRENT I_C (mA)
-1500
-1000
-300
-100
-30
-10
-3
-1
COMMON EMITTER
V_{CE}=-1V
T_a=100℃
T_a=25℃
-0.0
-0.2
-0.4
-0.6
-0.8
-1.0
-1.2
BASE-EMMITER VOLTAGE V_{BE} (mV)


C_{ob}/ C_{ib} — V_{CB}/ V_{EB}
CAPACITANCE C (pF)
100
30
10
f=1MHz
I_E=0/I_C=0
T_a=25℃
C_{ib}
C_{ob}
-0.2
-0.5
-1
-3
-10
20
REVERSE VOLTAGE V (V)


f_T — I_C
TRANSITION FREQUENCY f_T (MHz)
500
300
100
30
10
V_{CE}=-10V
T_a=25℃
-1
-3
-10
-30
-100
COLLECTOR CURRENT I_C (mA)


P_C — T_a
COLLECTOR POWER DISSIPATION P_C (mW)
600
500
400
300
200
100
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE T_a (℃)

SOT89-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

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