



WANSEMI
万芯半导体

S8550-M

SOT23 TRANSISTOR(PNP)

SOT23/TRANS(PNP)/-300mA/200-350

Rev1.1

SOT23 TRANSISTOR(PNP)

1.Features

- ◆ Complementary to S8550
- ◆ Power Dissipation of 200mW
- ◆ High Stability and High Reliability

2. Mechanical Data

- ◆ SOT-23 Small Outline Plastic Package
- ◆ Mounting Position: Any



3.Package Marking and Ordering Information

Part no.	Marking	Package	PCS/Reel	PCS/CTN.
S8050-M	J3Y.	SOT-23	3,000	180,000

4. Maximum Ratings & Thermal Characteristics at Ta=25°C

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-35	V
Collector-Emitter Voltage	V_{CEO}	-25	V
Emitter -Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

5. Electrical Characteristics at Ta=25°C

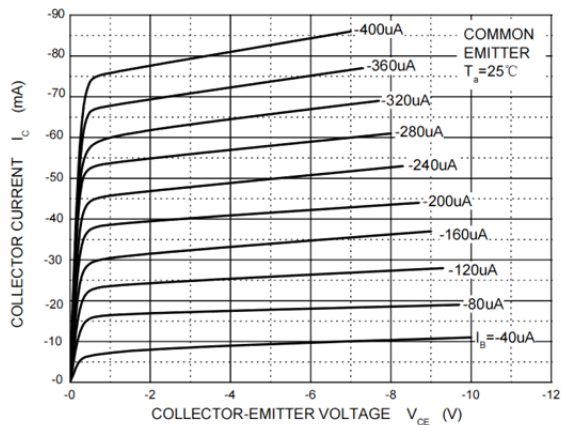
Parameter	Symbol	Test Conditions	Min.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-23		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-8		V
Collector cut-off current	I_{CEO}	$V_{CE} = -20V, I_B = 0$		-100	nA
Collector cut-off current	I_{CBO}	$V_{CB} = -25V, I_E = 0$		-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$		-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -50mA$	100	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 $h_{FE(1)}$

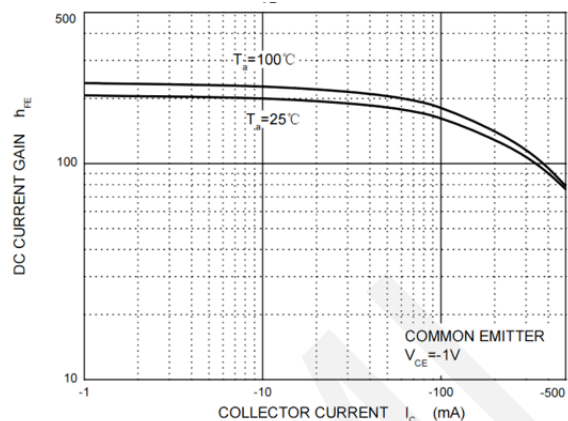
RANK	L	H	J
RANGE	120-200	200-350	300-400



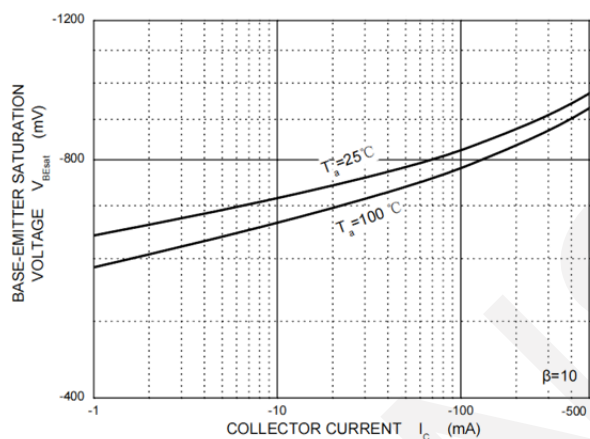
6. Typical Characteristics



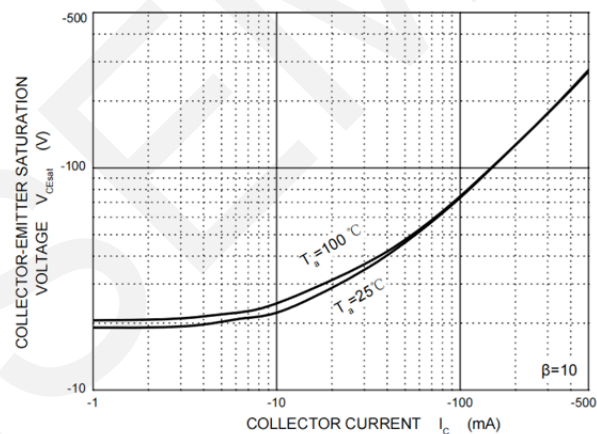
$I_C \sim V_{CE}$



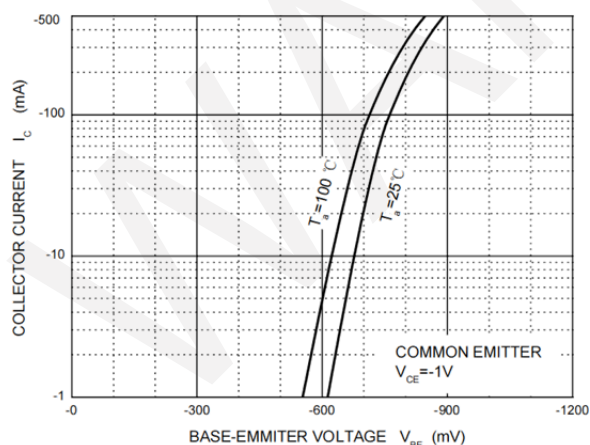
$h_{FE} \sim I_C$



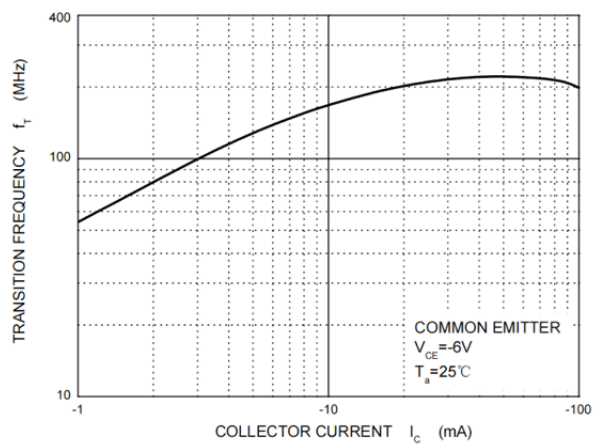
$V_{BE(sat)} \sim I_C$



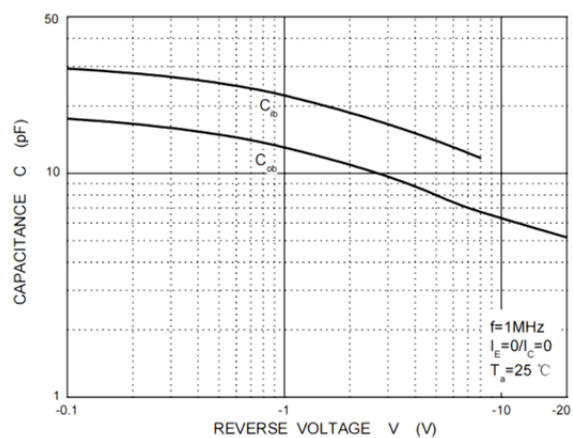
$V_{CE(sat)} \sim I_C$



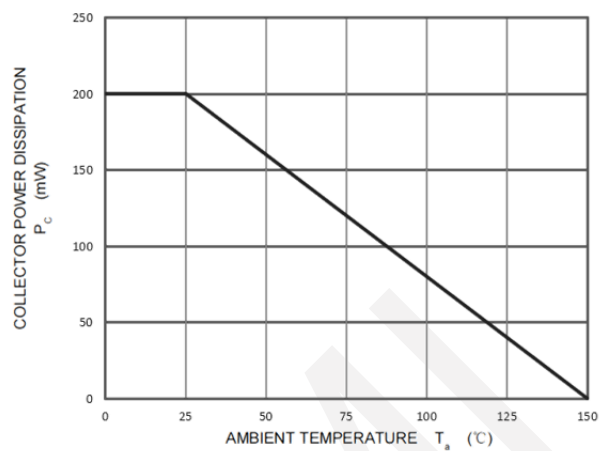
$I_C \sim V_{BE}$



$f_T \sim I_C$

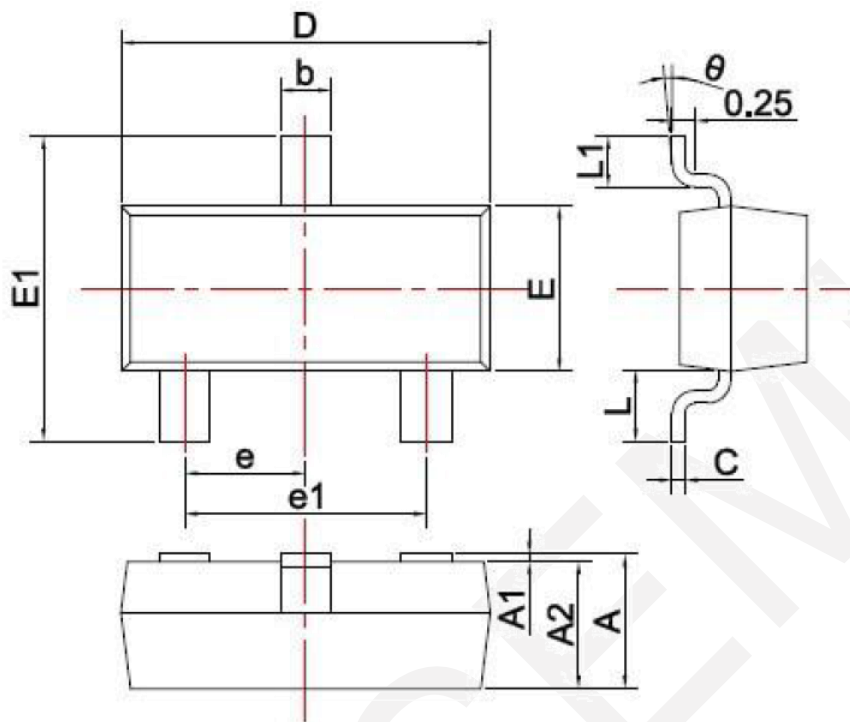


$C_{ob}/C_{ib} - V_{CB}/V_{EB}$



$P_C - T_a$

7.Package Dimensions



Symbol	Dimensions in Millimeters		
	MIN.	TYP.	MAX.
A	0.900		1.150
A1	0.000		0.100
A2	0.900		1.050
b	0.300		0.500
c	0.080		0.150
D	2.800		3.000
E	1.200		1.400
E1	2.250		2.550
e		0.950	
e1	1.800		2.000
L		0.550	
L1	0.300		0.500
θ	0°		8°

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