



**WANSEMI**  
万芯半导体

**SS8050**

# **SOT23 TRANSISTOR(NPN)**

SOT23/TRANS(NPN)/1500mA/200-350

Rev1.0

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## SOT23 TRANSISTOR(NPN)

### 1.Features

- ◆ Complementary to SS8550
- ◆ Power Dissipation of 300mW
- ◆ High Stability and High Reliability

### 2. Mechanical Data

- ◆ SOT-23 Small Outline Plastic Package
- ◆ Epoxy UL: 94V-0
- ◆ Mounting Position: Any



### 3.Package Marking and Ordering Information

Part no.	Marking	Package	PCS/Reel	PCS/CTN.
SS8050	Y1	SOT-23	3,000	120,000

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

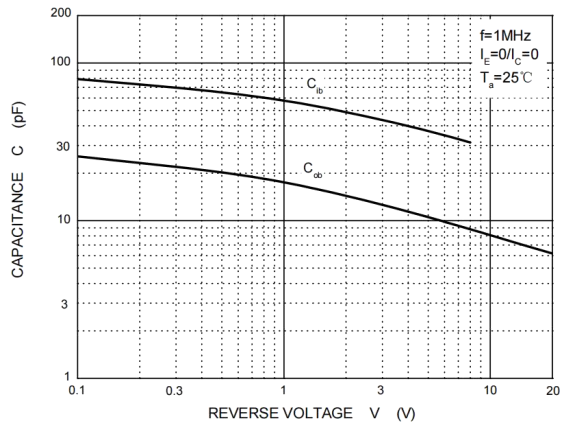
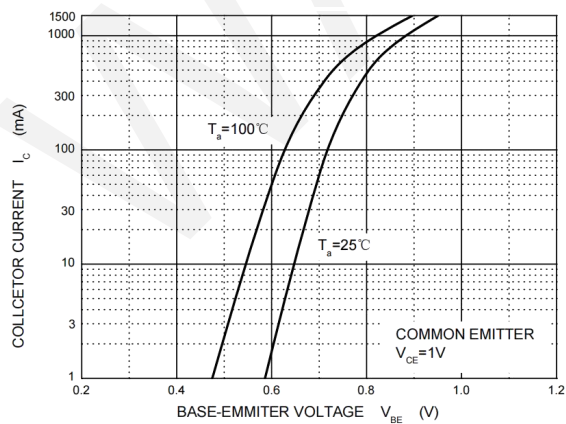
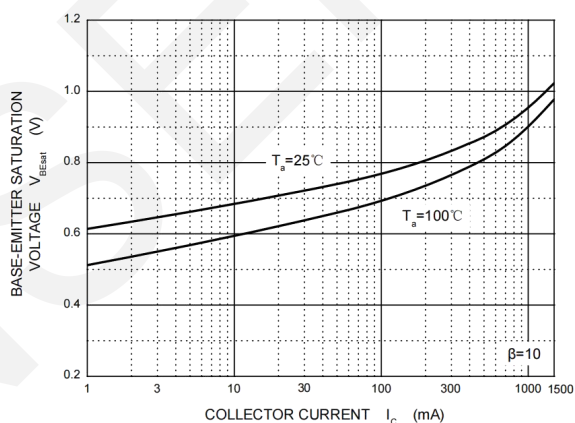
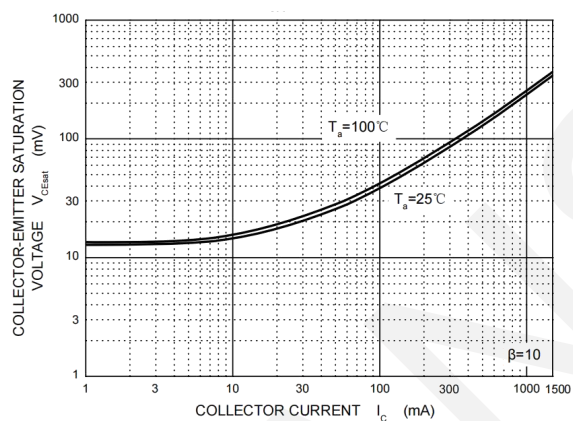
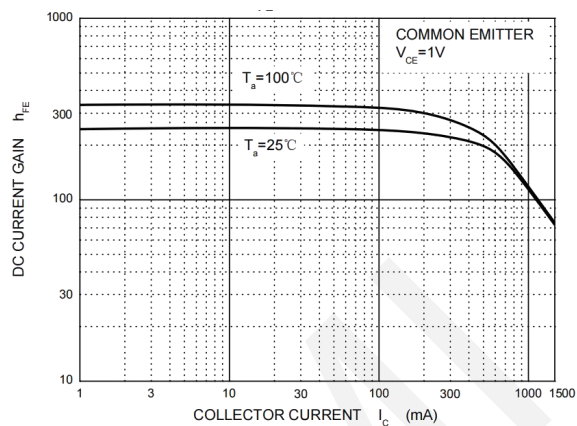
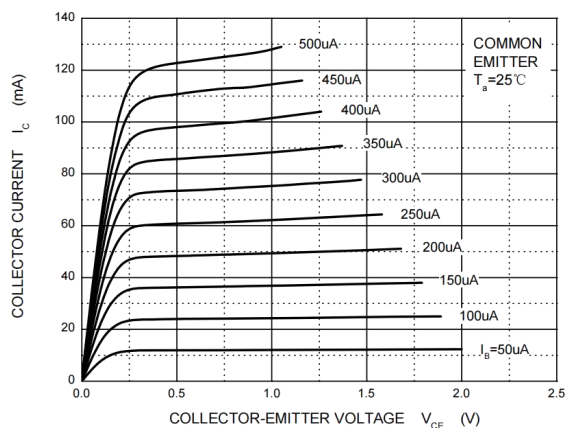
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	25	V
Emitter -Base Voltage	$V_{EBO}$	5	V
Collector Current-Continuous	$I_C$	1500	mA
Collector Power Dissipation	$P_C$	300	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55 ~ +150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	417	°C/W

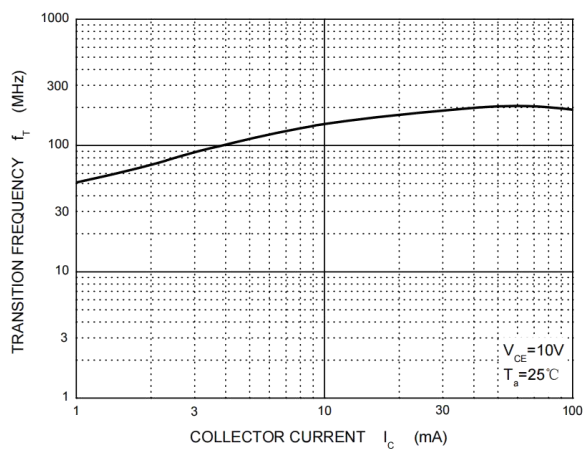
### 5.Electrical Characteristics at Ta=25°C

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	$V_{(BR)CEO}$	$I_C=0.1mA, I_B=0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5		V
Collector cut-off current	$I_{CEO}$	$V_{CE}=20V, I_B=0$		100	nA
Collector cut-off current	$I_{CBO}$	$V_{CB}=40V, I_E=0$		100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$		100	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=100mA$	120	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
Transition frequency	$f_T$	$V_{CE}=10V, I_C=50mA, f=30MHz$	100		MHz

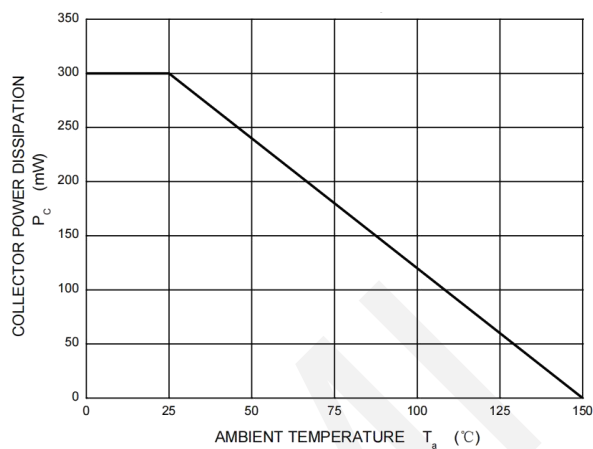


## 6. Typical Characteristics



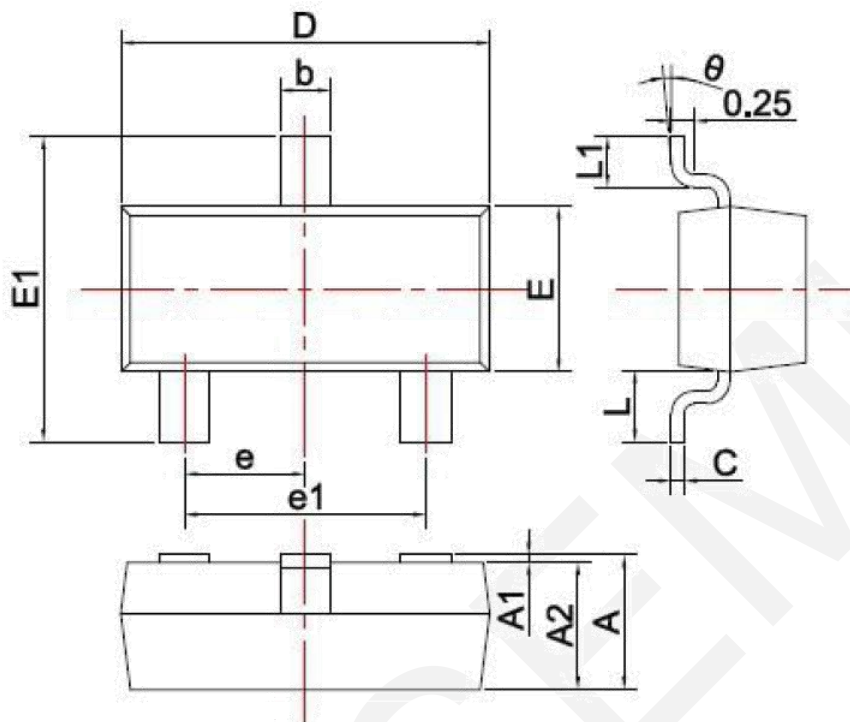


$f_T \sim I_C$



$P_C \sim T_a$

## 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
$\theta$	0°		8°

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