

Plastic-Encapsulate Transistors

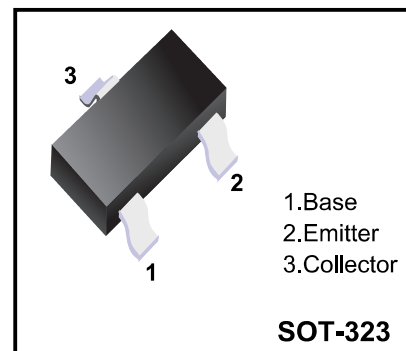
TRANSISTOR(NPN)

FEATURES

- ◆Complementary to S8550W
- ◆Power Dissipation of 200mW
- ◆High Stability and High Reliability

Mechanical Data

- ◆Case:SOT-323
- ◆Epoxy UL: 94V-0
- ◆Mounting Position: Any



Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	25	V
Emitter -Base Voltage	V_{EB0}	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
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	°C/W

Electrical Characteristics

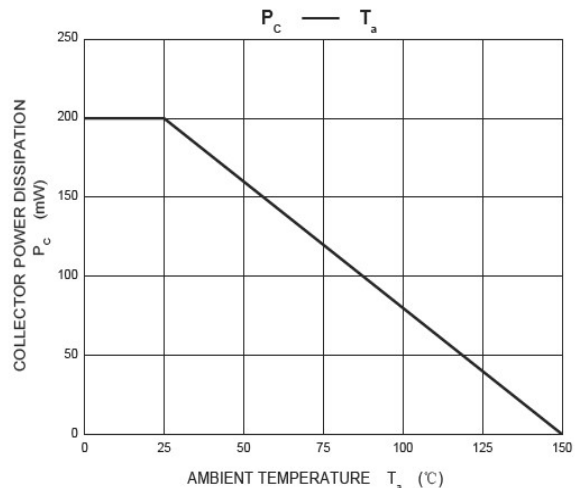
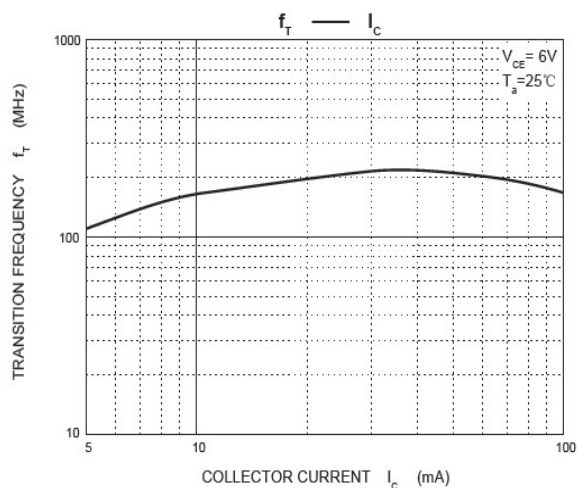
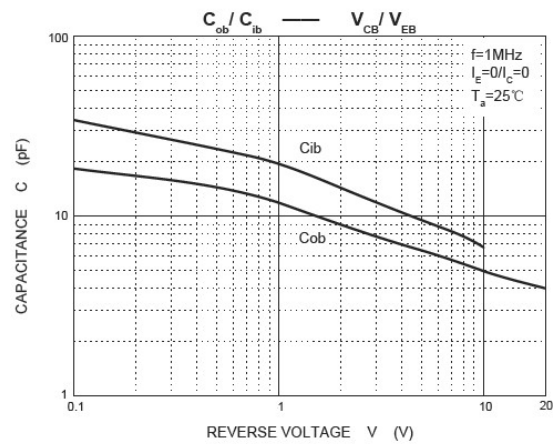
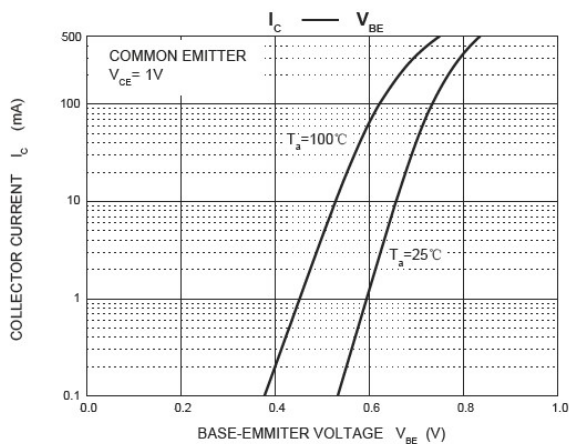
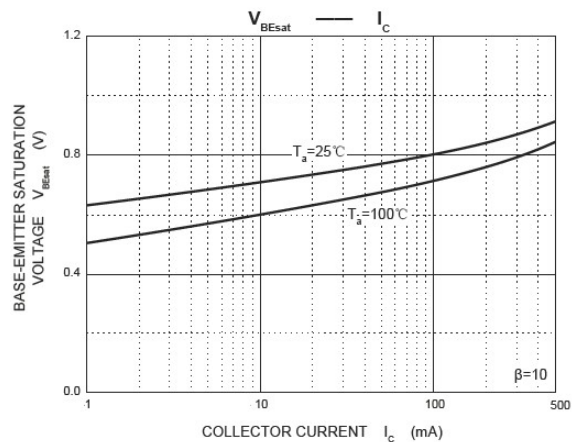
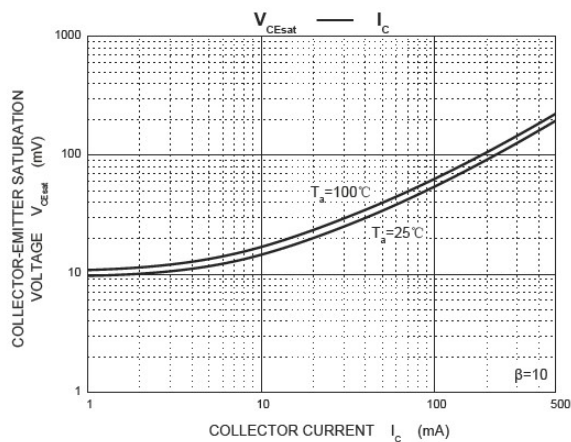
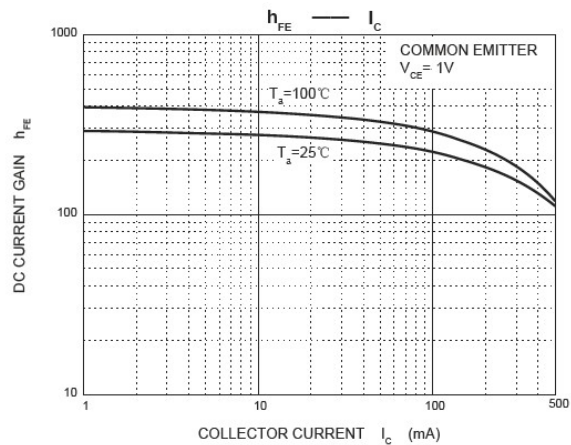
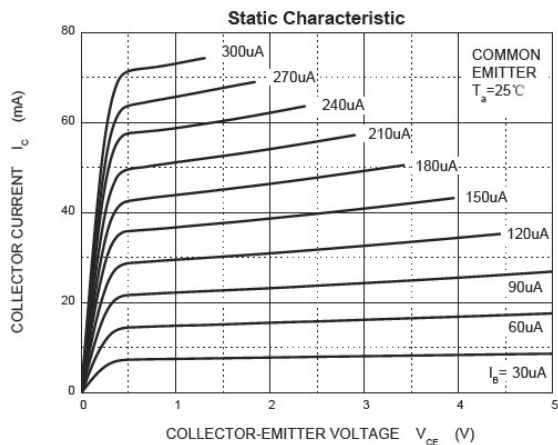
Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Test Condition	Symbols	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	$V_{(BR)CBO}$	40	-	V
Collector-emitter breakdown voltage	$I_C=1mA, I_B=0$	$V_{(BR)CEO}$	25	-	V
Emitter-base breakdown voltage	$I_E=100\mu A, I_C=0$	$V_{(BR)EBO}$	5	-	V
Collector cut-off current	$V_{CE}=20V, I_B=0$	I_{CEO}	-	100	nA
Collector cut-off current	$V_{CB}=40V, I_E=0$	I_{CBO}	-	100	nA
Emitter cut-off current	$V_{EB}=5V, I_C=0$	I_{EBO}	-	100	nA
DC current gain	$V_{CE}=1V, I_C=50mA$	$h_{FE(1)}$	120	400	
	$V_{CE}=1V, I_C=500mA$	$h_{FE(2)}$	50	-	
Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$	$V_{CE(sat)}$	-	0.60	V
Base -emitter saturation voltage	$I_C=500mA, I_B=50mA$	$V_{BE(sat)}$	-	1.20	V
Base -emitter voltage	$V_{CE}=1V, I_C=10mA$	V_{BE}	-	0.70	V
Transition frequency	$V_{CE}=6V, I_C=20mA, f=30MHz$	f_T	150	-	MHz

Classification Of $h_{FE(1)}$

RANK	S8050W-L	S8050W-H	S8050W-J
RANGE	120-200	200-350	300-400
MARKING	J2Y	J3Y	J4Y

Typical Characteristics



Ordering information

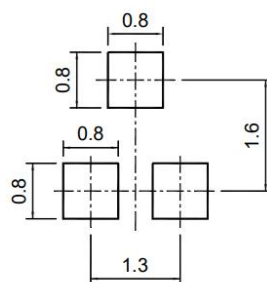
Package	Packing Description	Base Quantity	Packing Quantity
SOT-323	Tape/Reel, 7" reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-323

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	0.1		4	
bp	0.3	0.4	12	16
C	0.10	0.25	4	10
D	1.8	2.2	71	87
E	1.15	1.35	45	53
e	1.3		51	
e1	0.65		26	
HE	2.0	2.2	79	87
Lp	0.15	0.45	6	18
Q	0.13	0.23	5.1	9
v	0.2		8	
W	0.2		8	

The recommended mounting pad size



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