SS8550W-H
Silicon Epitaxial Planar Transistor (PNP)

FEATURES

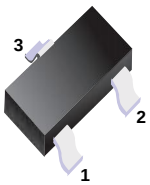
Collector Current.(I_C= 1.5A)

Collector Dissipation: P_C=0.2W (T_C=25°C)

Y2

APPLICATION

High Collector Current.



Simplified outline(SOT-323)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum ratings (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
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_C	Collector Dissipation	0.2	W
T_j, T_{stg}	Junction and Storage Temperature	-55~150	℃

Electrical Characteristics

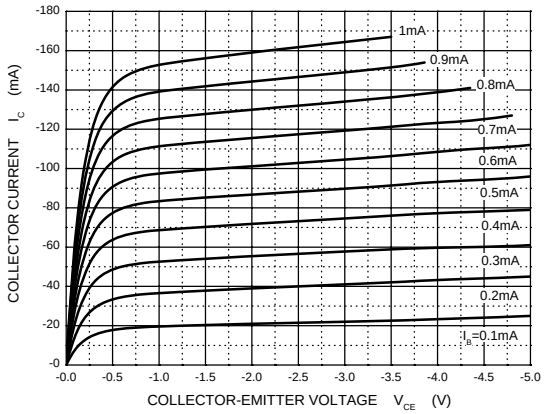
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-0.1mA,I_B=0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V,I_E=0			-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}	V_{CE}=-1V,I_C=-100mA	120		400	
		V_{CE}=-1V,I_C=-800mA	30			
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
Output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MHz			20	pF
Base-emitter voltage	V_{BEF}	I_E=-1.5A			-1.6	V

CLASSIFICATION OF h_{FE}

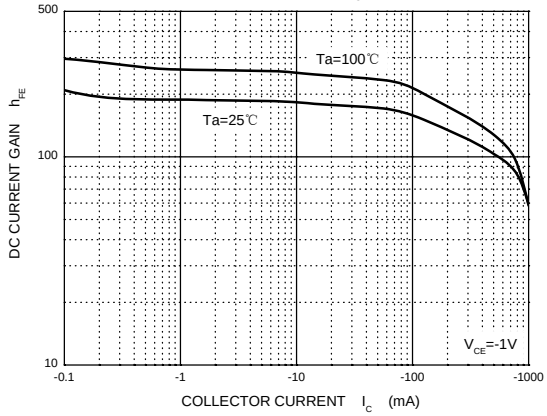
Rank	L	H	J
Range	120-200	200-350	300-400

RATING AND CHARACTERISTIC CURVES

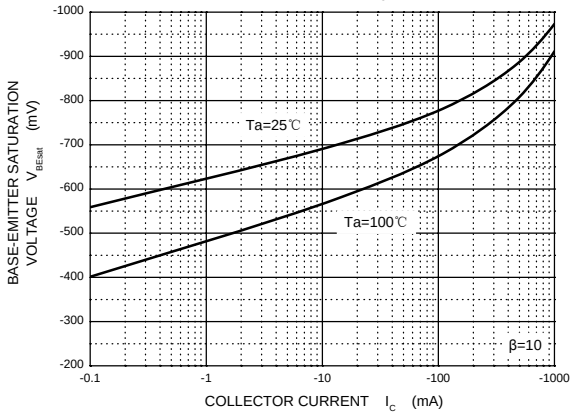
Static Characteristic



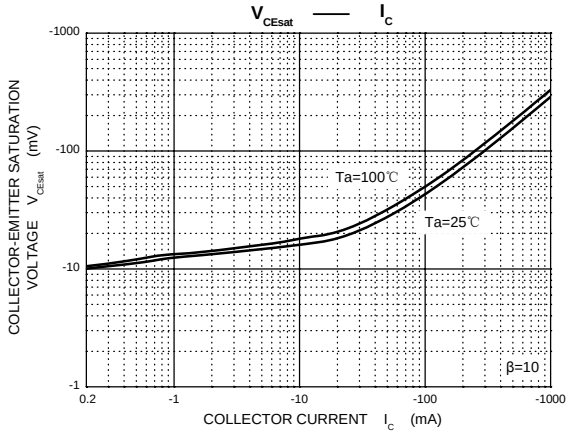
h_{FE} —— I_C



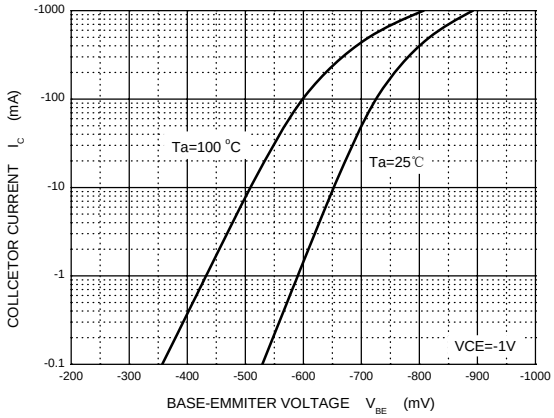
V_{BEsat} —— I_C



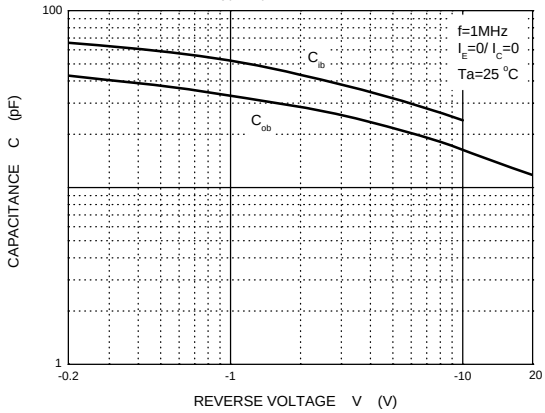
V_{CEsat} —— I_C



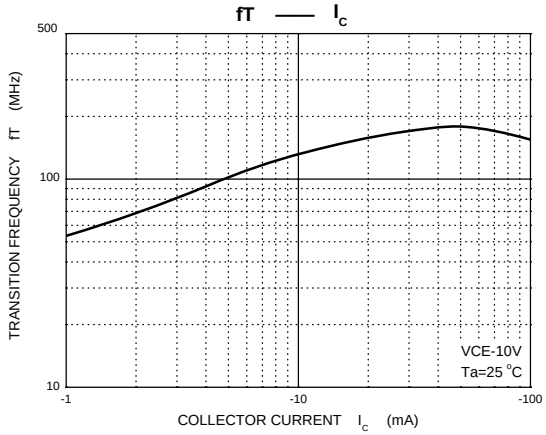
V_{BE} —— I_C



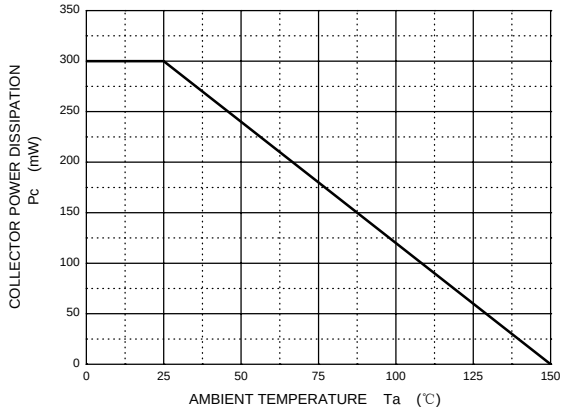
C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



fT —— I_C



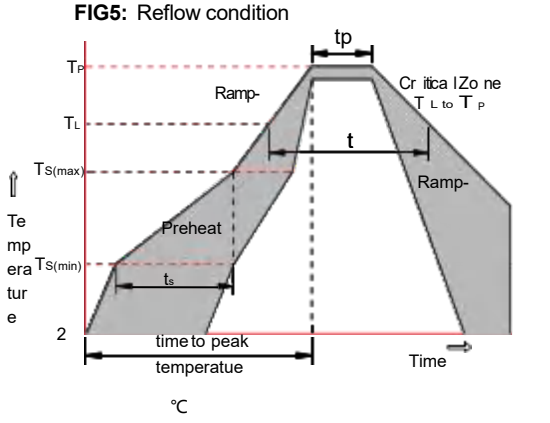
Pc —— Ta



Soldering parameters

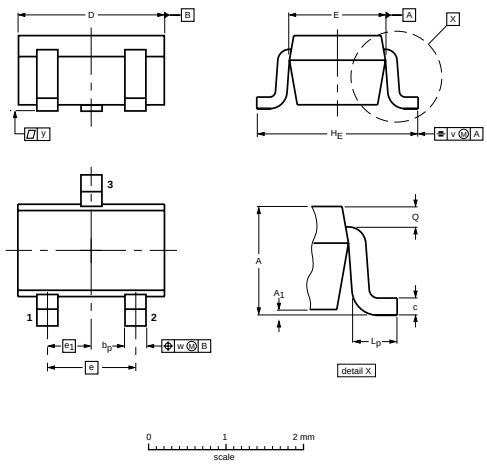
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

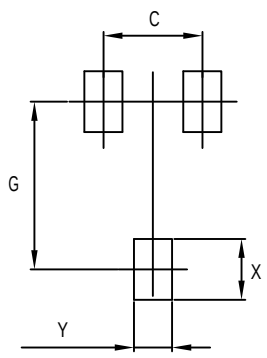
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SOT-323





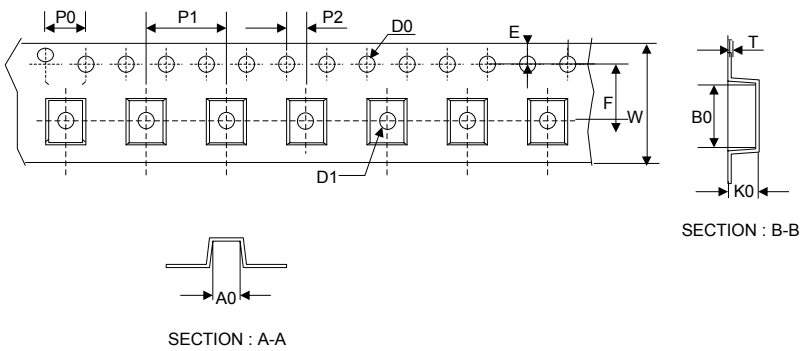
Dimensions	Value (in mm)
C	1.30
G	2.00
X	0.90
Y	0.65

DIMENSIONS (mm are the original dimensions)

UNIT	A	A_1 max	b_p	c	D	E	e	e_1	H_E	L_p	Q	v	w
mm	1.1 0.8	0.1	0.4 0.3	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.23 0.13	0.2	0.2

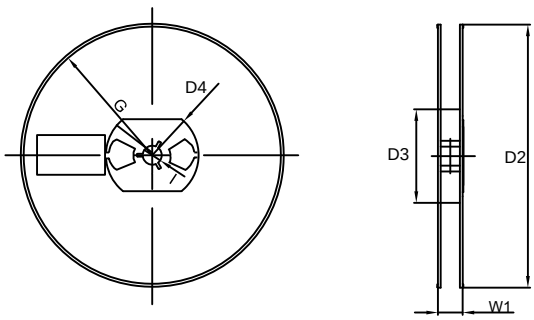
Tape & rell specification

Tape



Symbol	Dimension (mm)
P0	4.00±0.20
P1	4.00±0.20
P2	2.00±0.20
D0	1.55±0.20
D1	1.00±0.20
E	1.55±0.25
F	3.60±0.20
W	8.00±0.20
A0	2.50±0.20
B0	2.60±0.20
K0	1.40±0.20
T	0.20±0.20

7” Reel



D2	177.0±5.0
D3	55Min.
D4	R24.6±2.0
G	R82.0±2.0
I	13.0±2.0
W1	10.20±3.0

Quantity: 3000PCS