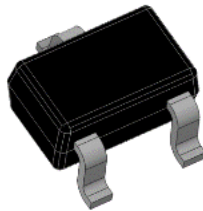
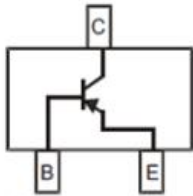


PNP General Purpose Amplifier



SOT-323

Features

- Moisture sensitivity level 1
- Halogen free and RoHS compliant
- Surface mount package ideally suited for automatic insertion

Application

- Signal amplification
- Switching circuit

Mechanical data

- **Package:** SOT-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Device marking code			SS8550W-L	Y2-L
			SS8550W-M	Y2-M
			SS8550W-H	Y2
Collector-base voltage	V_{CBO}	V	$I_C=-100\mu\text{A}, I_E=0$	-40
Collector-emitter voltage	V_{CEO}	V	$I_C=-100\mu\text{A}, I_B=0$	-25
Emitter-base voltage	V_{EBO}	V	$I_E=-100\mu\text{A}, I_C=0$	-5
Collector current	I_C	A		-1.5
Power dissipation	P_D	mW		200
Junction temperature	T_J	$^{\circ}\text{C}$		-55 to +150
Storage temperature	T_{STG}	$^{\circ}\text{C}$		-55 to +150



SS8550W-L THRU SS8550W-H

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions		Min	Typ	Max
Collector-base breakdown voltage	$V_{(BR)CBO}$	V	$I_C=-100\mu A, I_E=0$		-40		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	V	$I_C=-100\mu A, I_B=0$		-25		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	V	$I_E=-100\mu A, I_C=0$		-5		
Collector-base cut-off current	I_{CBO}	nA	$V_{CB}=-40V$				-100
Collector-emitter cut-off current	I_{CEO}	nA	$V_{CE}=-20V$				-100
Emitter-base cut-off current	I_{EBO}	nA	$V_{EB}=-5V$				-100
DC current gain	h_{FE1}		SS8550-L	$V_{CE}=-1V, I_C=-100mA$	120		200
			SS8550-M		160		300
			SS8550-H		200		350
	h_{FE2}		$V_{CE}=-1V, I_C=-800mA$		40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=-800mA, I_B=-80mA$				-0.5
Base-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=-800mA, I_B=-80mA$				-1.2
Transition frequency	f_T	MHz	$V_{CE}=-10V, I_C=-50mA, f=30MHz$		100		

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	625
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	500

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint



SS8550W-L THRU SS8550W-H

■ Characteristics

Fig 1: Static Characteristics

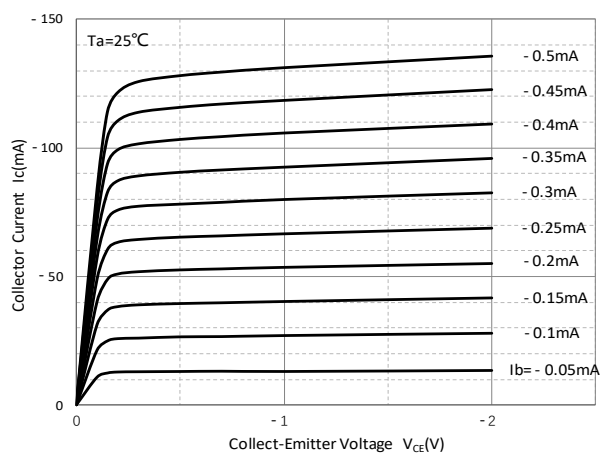


Fig 2: DC Current Gain

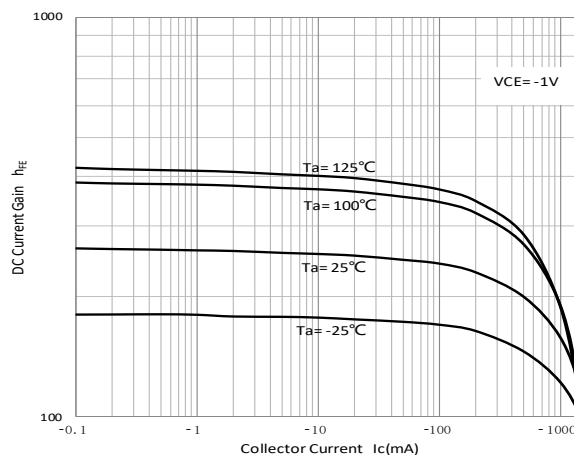


Fig 3: Collector-Emitter Saturation Voltage

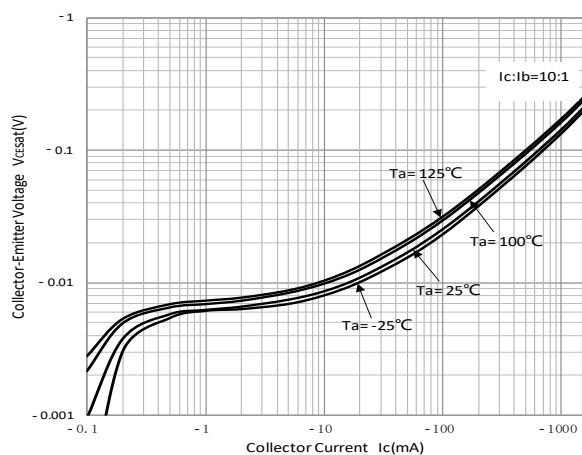


Fig 4: Base-Emitter Saturation Voltage

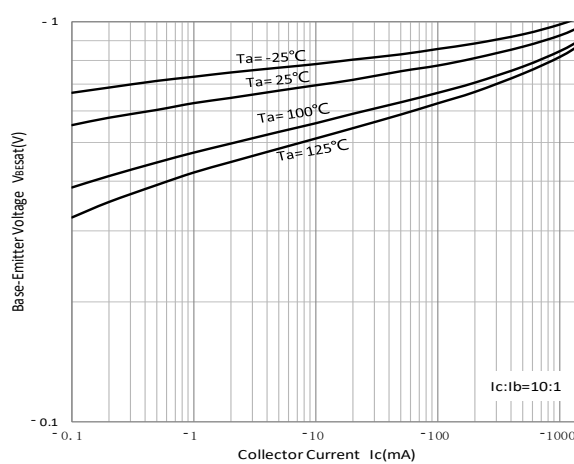


Fig 5: Base-Emitter On Voltage

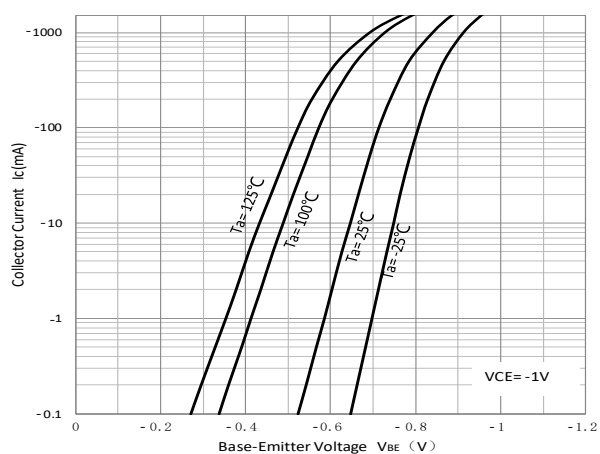
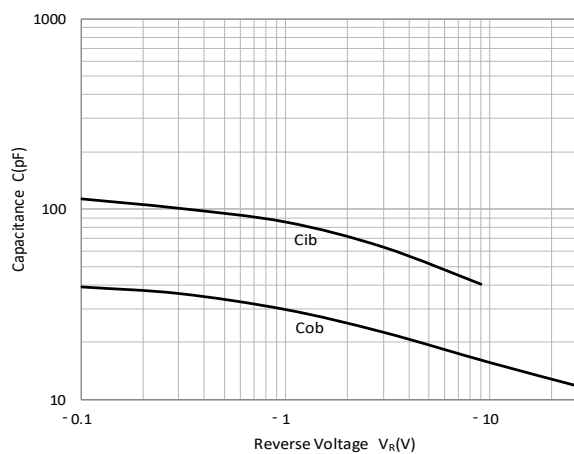


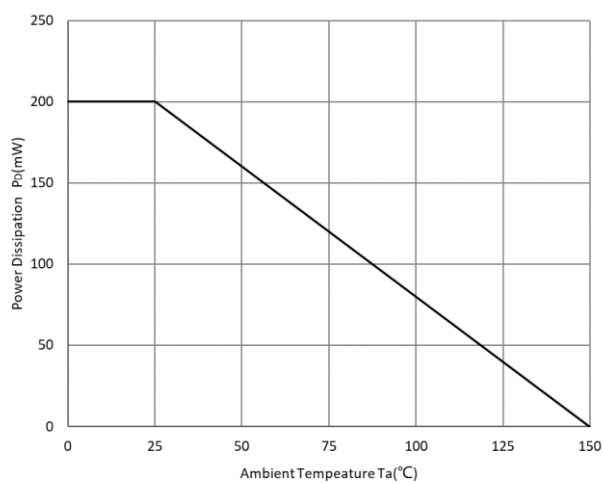
Fig 6: Cob/Cib-VCB/VEB





SS8550W-L THRU SS8550W-H

Fig 7: P_D - T_a Curve



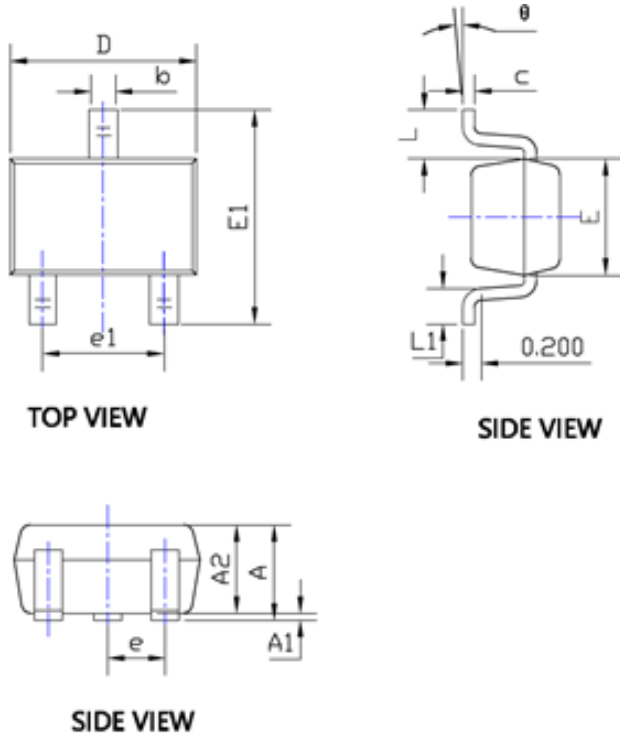
■ Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
SS8550W-L THRU SS8550W-H	F2	Approximate 0.005	3000	30000	120000	7" reel



SS8550W-L THRU SS8550W-H

■ Outline Dimensions

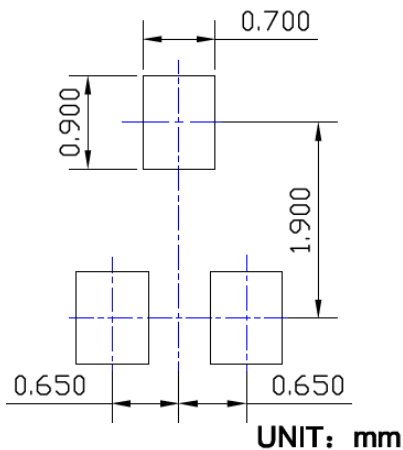


SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026 TYP		0.650 TYP	
e1	0.047	0.055	1.200	1.400
L	0.021 REF		0.525 REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

Note:

- All dimensions are in millimeters (mm) unless otherwise specified.
[所有尺寸均以毫米为单位，除非另有说明]
- General tolerances: $\pm 0.10\text{mm}$ unless otherwise specified.
[通用公差为 $\pm 0.10\text{mm}$ ，除非另有说明]
- Dimensions and tolerances per ASME Y14.5M-2018.
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
- All dimensions shown are exclusive of burrs and gate residues.
Burrs and gate vestiges shall not exceed 0.15 mm in maximum.
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
- Dimension b does not include dambar protrusion of max 0.100 mm per side.
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
- Dimensions D and E are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.
[D和E是塑封体的外部极限尺寸，不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺，但是包含了包封错位的最大尺寸]
- Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.
[成型的管脚应为同一平面，共面性最大为0.1mm]

■ Suggested Pad Layout





SS8550W-L THRU SS8550W-H

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