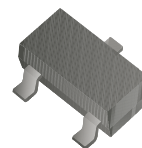


General Purpose Transistors PNP

RoHS Device

Halogen Free



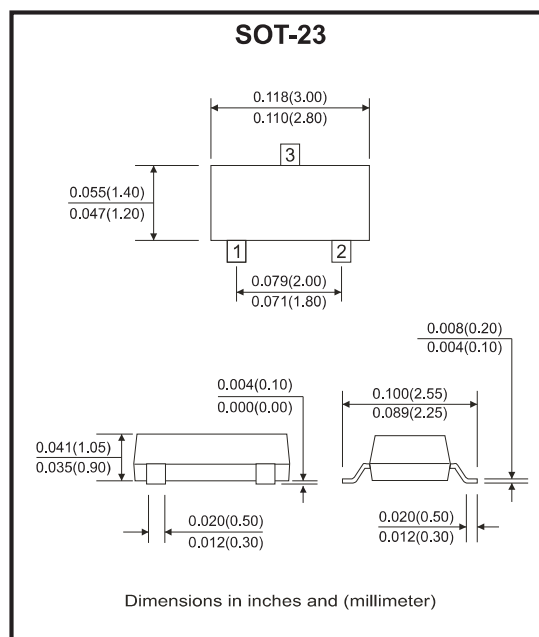
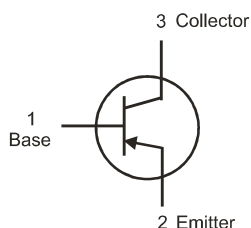
Features

- Epoxy meets UL-94 V-0 flammability rating.
- Moisture sensitivity Level 1.
- Surface mount package ideally suited for automatic insertion.

Mechanical data

- Case: SOT-23, molded plastic.
- Mounting position: Any.

Circuit Diagram

Maximum Ratings (at $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Collector-emitter voltage	$I_C = -100\mu\text{Adc}$, $I_B = 0$	V_{CE0}	-25	V
Collector-base voltage	$I_C = -100\mu\text{Adc}$, $I_E = 0$	V_{CBO}	-40	V
Emitter-base voltage	$I_E = -100\mu\text{Adc}$, $I_C = 0$	V_{EBO}	-5	V
Collector current		I_C	-1.5	A
Collector-emitter cut-off current	$V_{CE} = -20\text{Vdc}$	I_{CEO}	-100	nAdc
Collector-base cut-off current	$V_{CB} = -40\text{Vdc}$	I_{CBO}	-100	
Emitter-base cut-off current	$V_{EB} = -5\text{Vdc}$	I_{EBO}	-100	
Collector power dissipation		P_C	300	mW
Operation junction temperature range		T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	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	$V_{(BR)CEO}$	$I_C = -100\mu A, I_B = 0$	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -40V, I_E = 0$		-100	nA
Collector cut-off current	I_{CEO}	$V_{CE} = -20V, I_B = 0$		-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	350	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -800mA$	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
Small-signal characteristics					
Transition frequency	f_T	$V_{CE} = -10Vdc, I_C = -50mA, f = 30MHz$	100		MHz

Classification of hFE (1)

Rank	L	H
Range	120-200	200-350

Rating and Characteristic Curves

Fig.1 - Static Characteristic

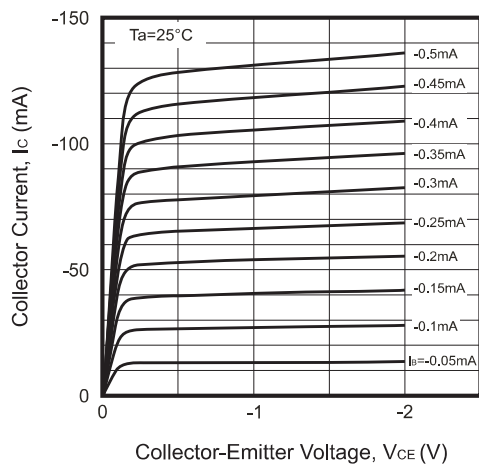


Fig.2 - DC Current Gain

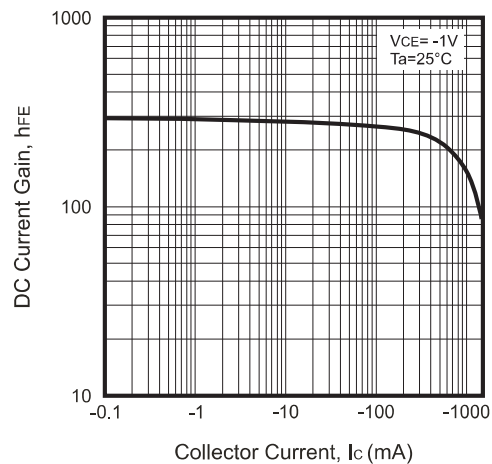


Fig.3 - Collector-Emitter Saturation Voltage

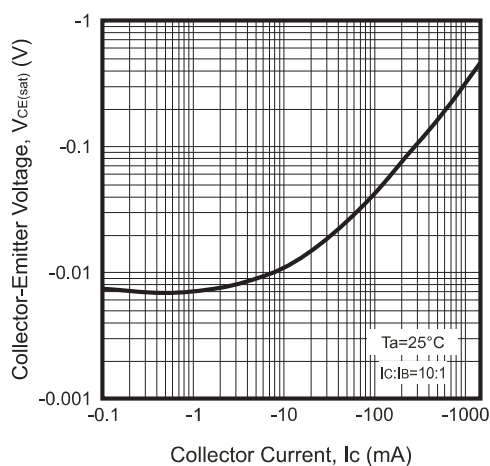


Fig.4 - Base-Emitter Saturation Voltage

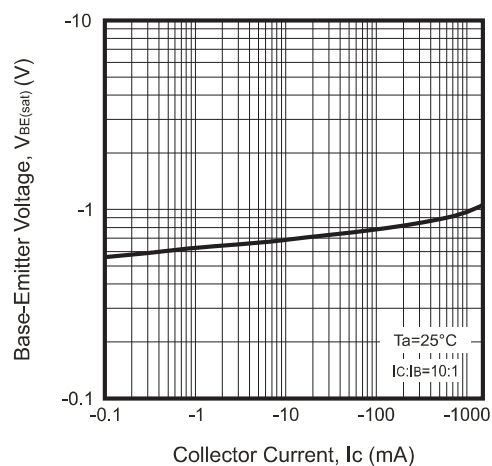


Fig.5 - Base-Emitter On Voltage

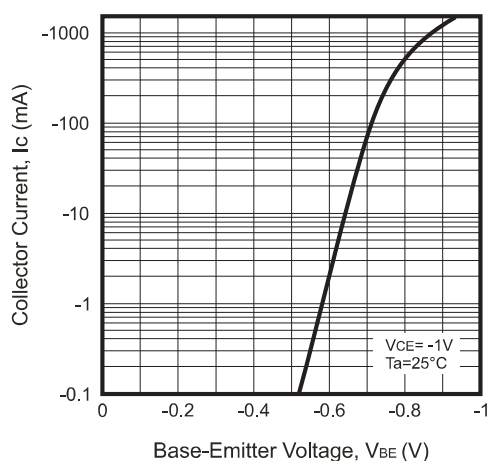
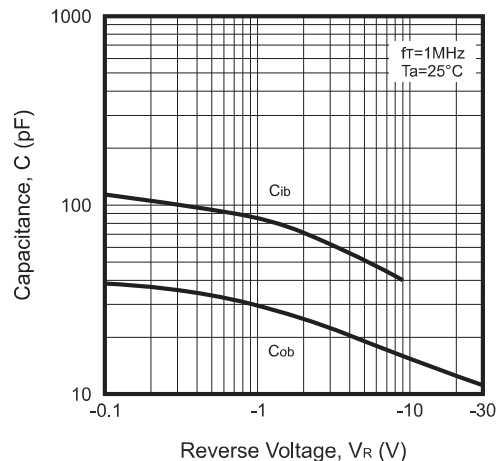


Fig.6 - $C_{ob}/C_{ib} - V_{CB}/V_{EB}$

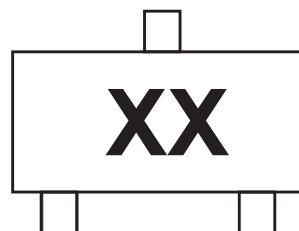


Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

Marking Code

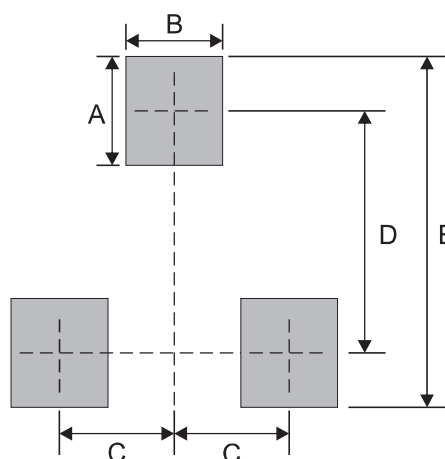
Part Number	Marking Code
SS8550-L	Y2L
SS8550-H	Y2



xx/xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114

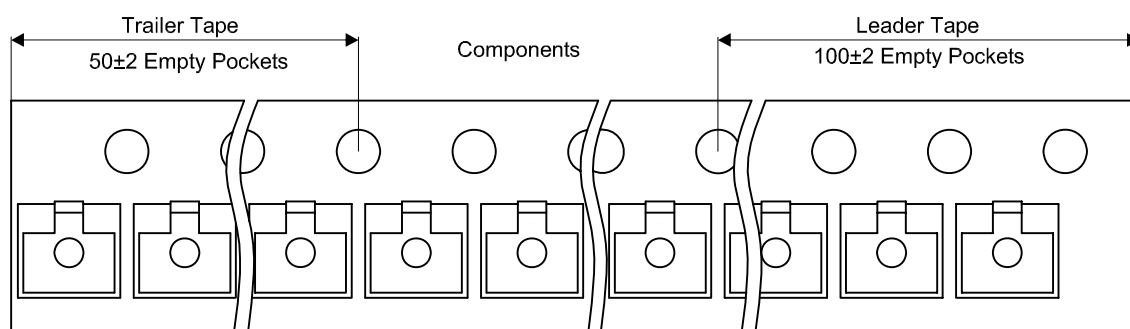
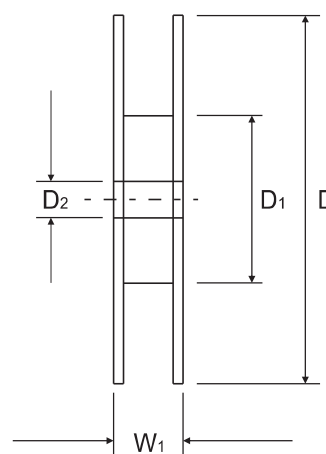
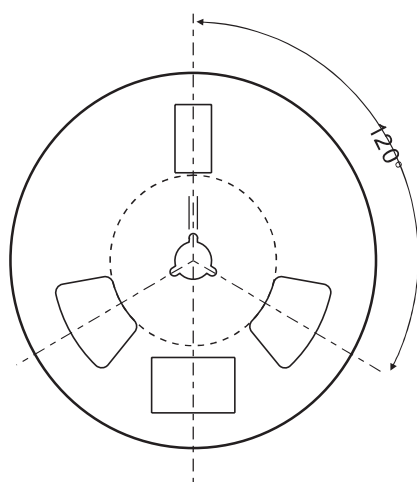
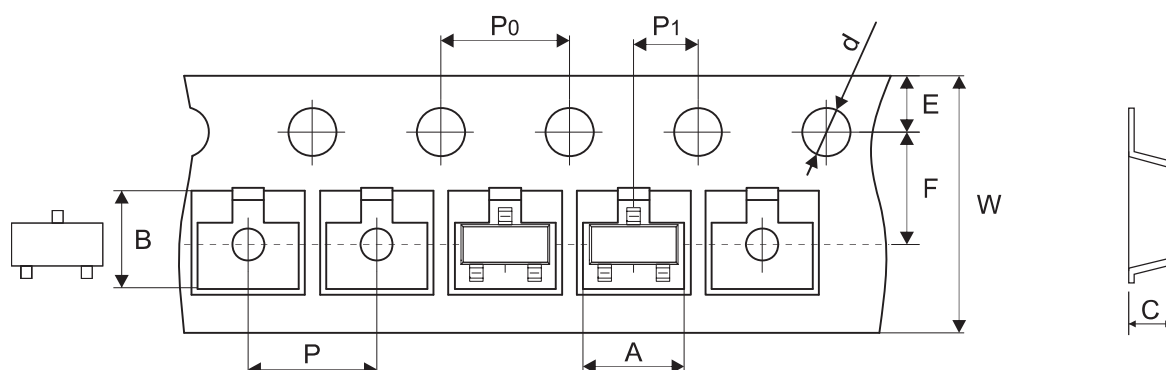


Note: 1. The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7

Reel Taping Specification



SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	$1.50 + 0.10 - 0.00$	178.00 ± 1.00	54.60 ± 1.00	13.30 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	$0.059 + 0.004 - 0.000$	7.008 ± 0.039	2.150 ± 0.039	0.524 ± 0.039

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	$8.00 + 0.30 - 0.10$	11.10 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	$0.315 + 0.012 - 0.004$	0.437 ± 0.008

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Rev:1.0