

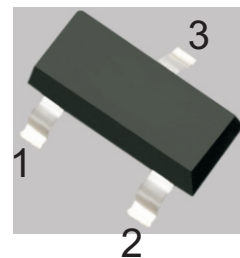
2SC1623

NPN TRANSISTOR

FEATURES

- High DC current gain : $h_{FE}=200$ (Typ) $V_{CE}=6V, I_C=1mA$
- High voltage: $V_{CEO}=50V$

SOT-23



1.BASE
2.EMITTER
3.COLLECTOR

MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector–Base Voltage	V_{CBO}	60	V
Collector–Emitter Voltage	V_{CEO}	50	V
Emitter–Base Voltage	V_{EBO}	5	V
Collector Current — Continuous	I_C	100	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	R_{thJA}	625	°C/W
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	°C

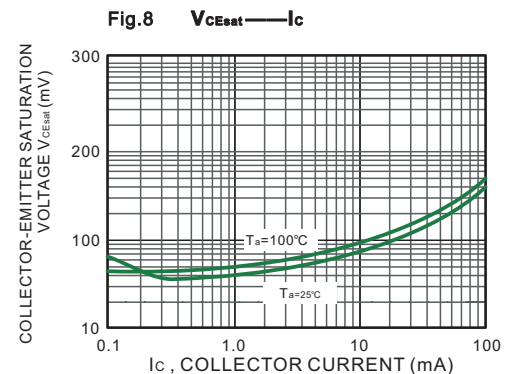
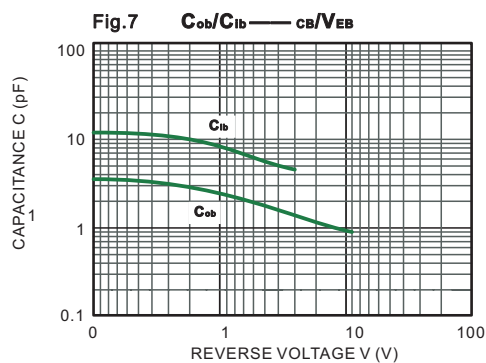
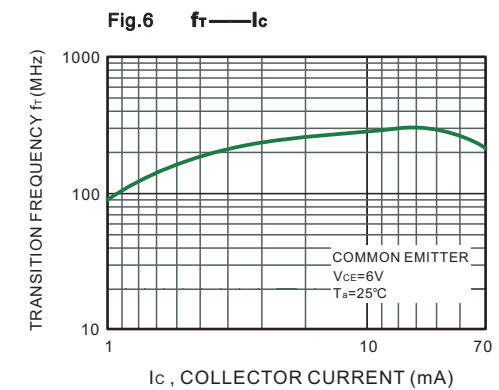
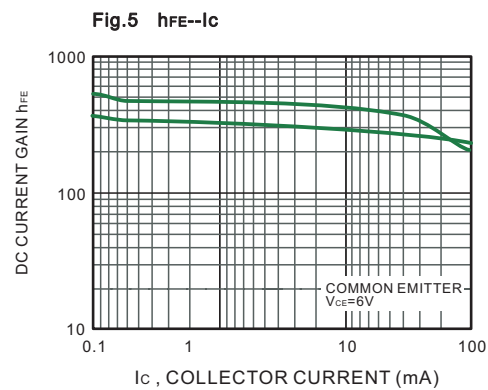
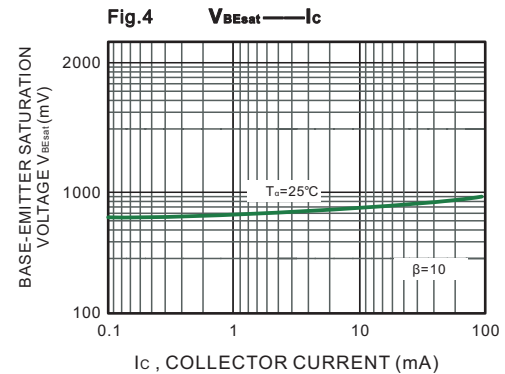
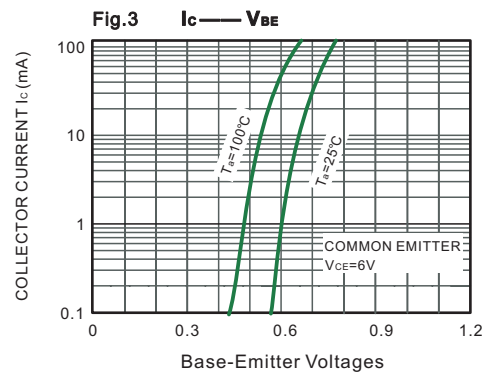
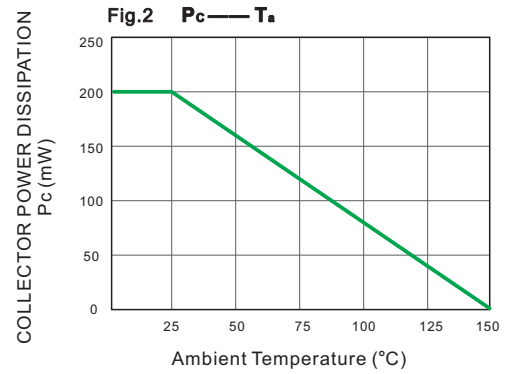
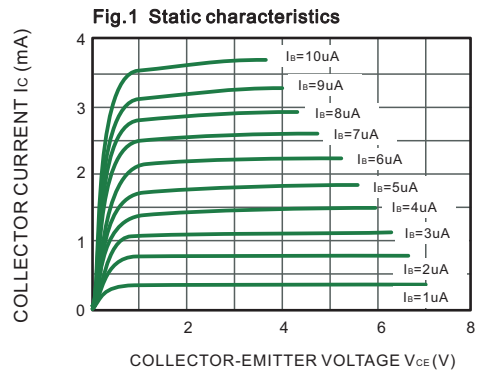
CLASSIFICATION OF h_{FE}

Rank	L4	L5	L6	L7
Range	90-180	135-270	200-400	300-600
Marking	L4	L5	L6	L7

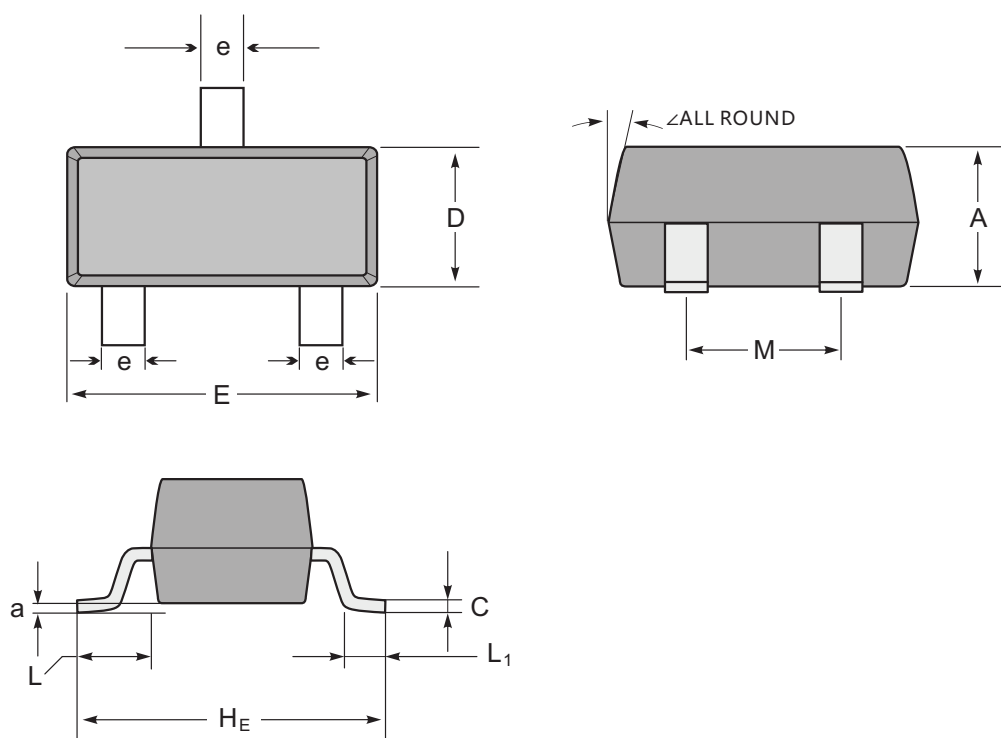
ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Max	Typ	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 mA, I_B = 0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$		0.1		μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$		0.1		μA
DC current gain	h_{FE}	$V_{CE} = 6V, I_C = 1mA$	90	600	200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$		0.3		V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100mA, I_B = 10mA$		1		V
Transition frequency	f_T	$V_{CE} = 6V, I_C = 10mA$			250	MHz

TYPICAL CHARACTERISTICS



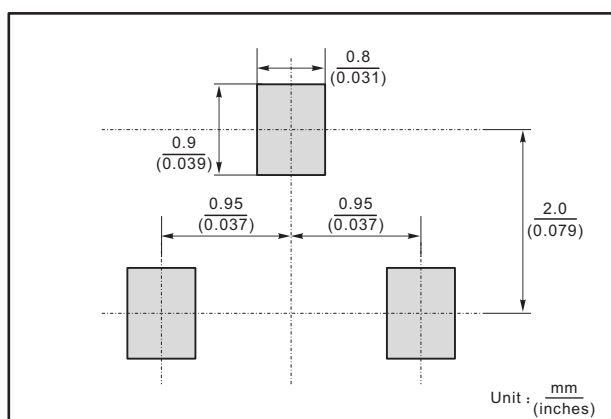
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L ₁	a	∠
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0	12°
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0	
	min	35	3	47	110	87	12	67			6	

The recommended mounting pad size

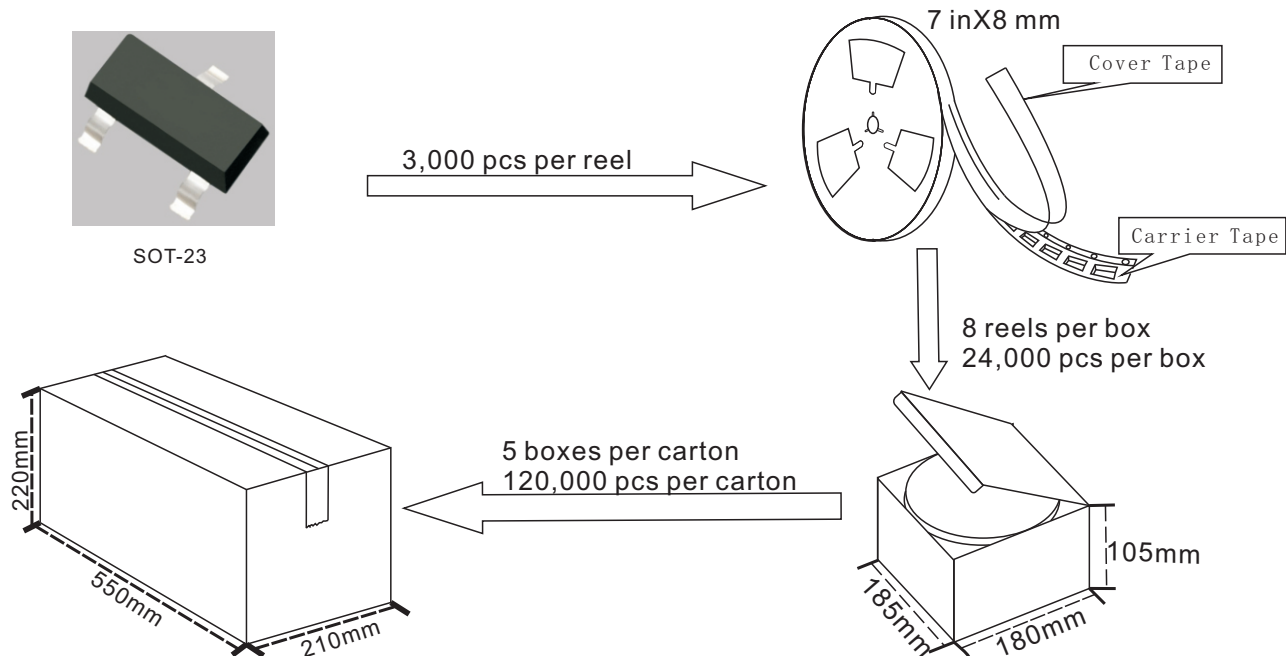


Marking

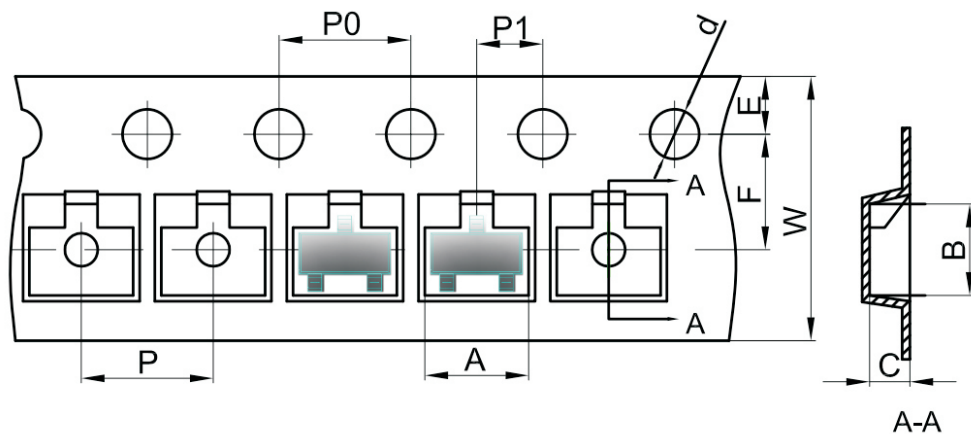
Type number	Marking code
2SC1623	L4/L5/L6/L7

SOT-23 Packing

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



SOT-23 Embossed Carrier Tape



Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer

