

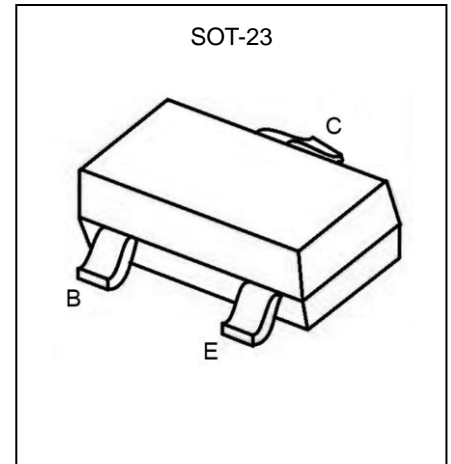


2SC1623 Transistor(NPN)

Feature

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

Rank	L4	L5	L6	L7
Range	900~180	135~270	200~400	300~600
Marking	FQ	FR	FS	L7



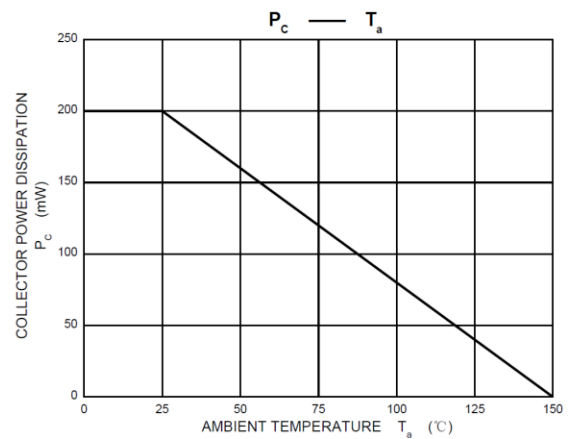
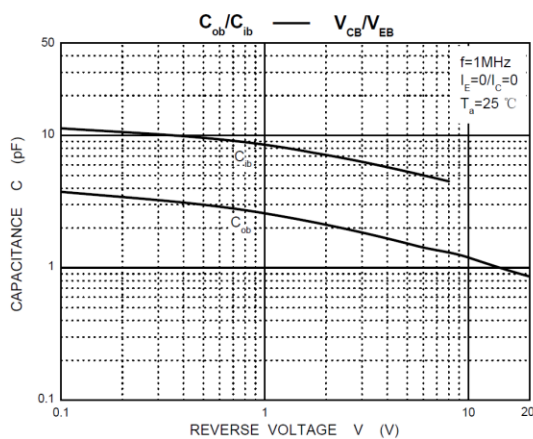
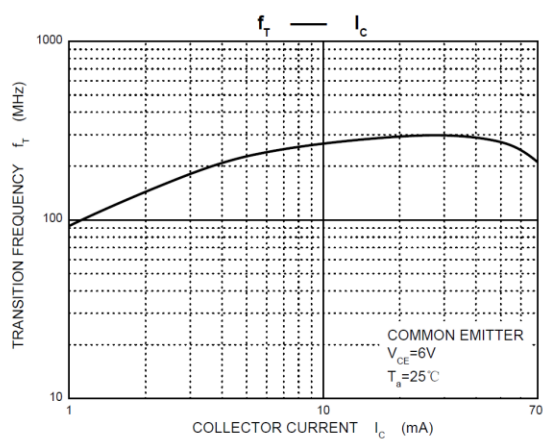
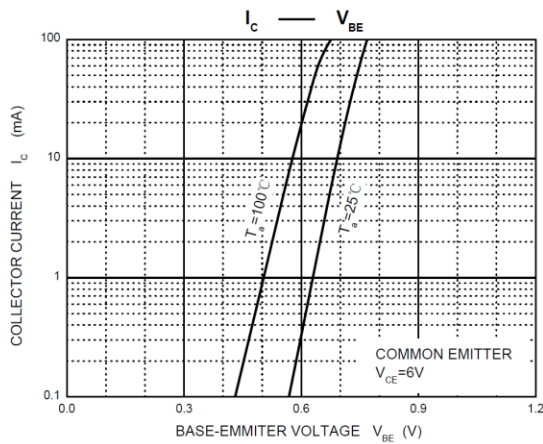
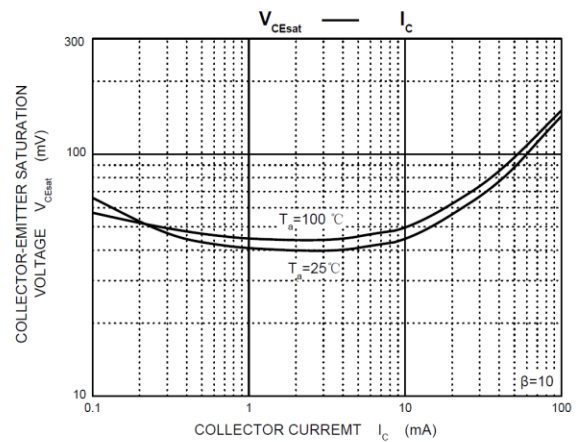
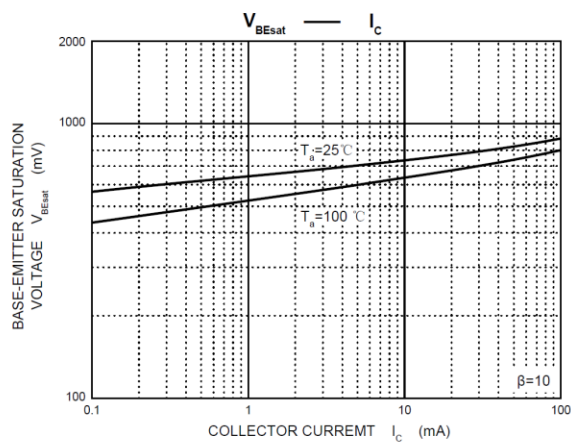
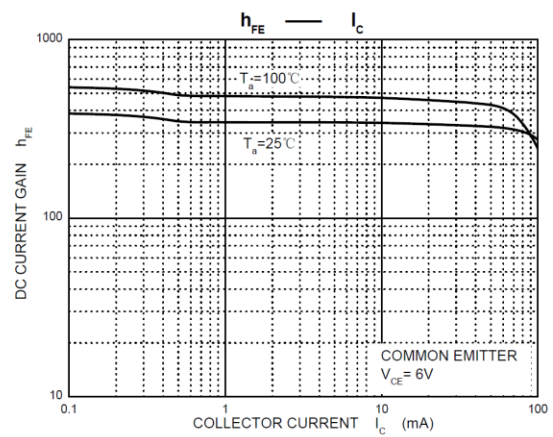
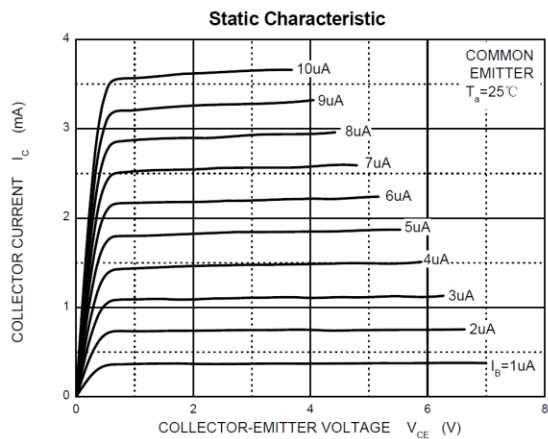
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

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	0.1	A
Power Dissipation	P_d	0.25	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

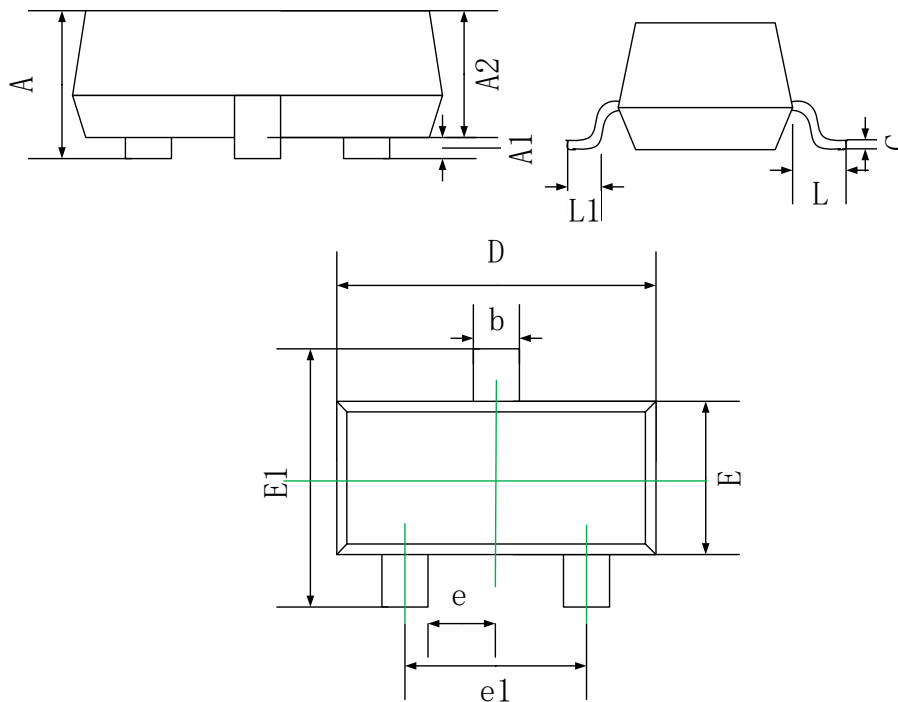
ELECTRICAL CHARACTERISTICS($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=100\mu A, I_B=0$	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
Collector cut-off current	I_{CEO}	$V_{CE}=40V, I_B=0$		0.1	μA
Base cut-off current	I_{BEX}			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3V, I_C=0$		0.1	μA
DC current gain	h_{FE1}	$V_{CE}=6V, I_C=0.1mA$	40		
	h_{FE2}	$V_{CE}=6V, I_C=1mA$	90	600	
	h_{FE3}	$V_{CE}=6V, I_C=50mA$	60		
	h_{FE4}	$V_{CE}=6V, I_C=100mA$	30		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=1mA$		0.2	V
		$I_C=100mA, I_B=5mA$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=20mA, I_B=1mA$		0.85	V
		$I_C=100mA, I_B=5mA$		0.95	V
Transition frequency	f_T	$V_{CE}=6V, I_C=10mA,$	150		MHZ

Typical Characteristics

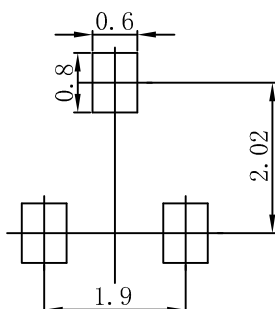


SOT-23 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50

SOT-23 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.