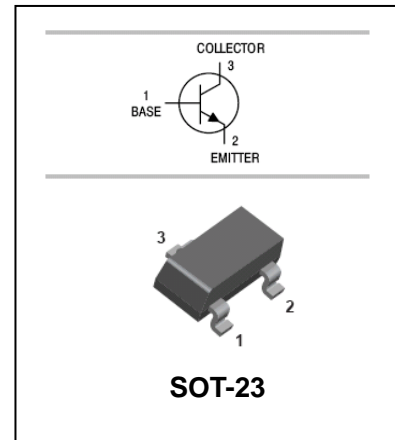


## Silicon Epitaxial Planar Transistor

## 2SC1623

### FEATURES

- High DC current gain:  $h_{FE}=200$  TYP  
( $V_{CE}=6.0V, I_C=1.0mA$ ).
- High Voltage:  $V_{CEO}=50V$ .



### APPLICATIONS

- NPN Silicon Epitaxial Planar Transistor.
- Audio frequency general purpose amplifier.

### ORDERING INFORMATION

Type No.	Marking	Package Code
2SC1623	L4/L5/L6/L7	SOT-23

### MAXIMUM RATING @ $T_a=25^\circ C$ unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	100	mA
$P_C$	Collector Dissipation	200	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^\circ C$



**Silicon Epitaxial Planar Transistor**

**2SC1623**

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	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	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=1mA$	90	200	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.15	0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$		0.86	1.0	V
Base Emitter Voltage	$V_{BE}$	$V_{CE}=6V, I_C=1mA$	0.55	0.62	0.65	V
Transition frequency	$f_T$	$V_{CE}=6V, I_E=-10mA$		250		MHz
Output capacitance	$C_{ob}$	$V_{CB}=6V, I_E=0, f=1.0MHz$		3.0		pF

**CLASSIFICATION OF  $h_{FE(1)}$**

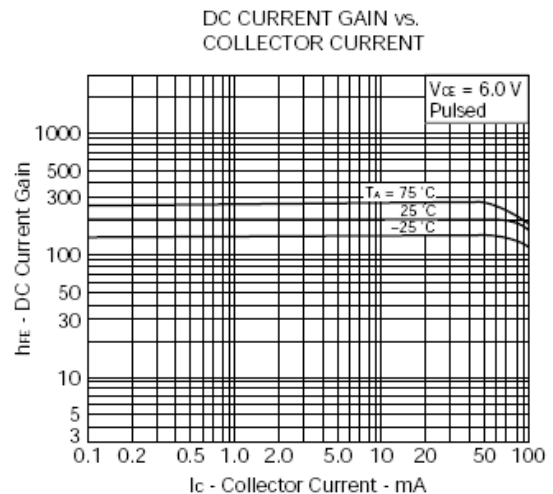
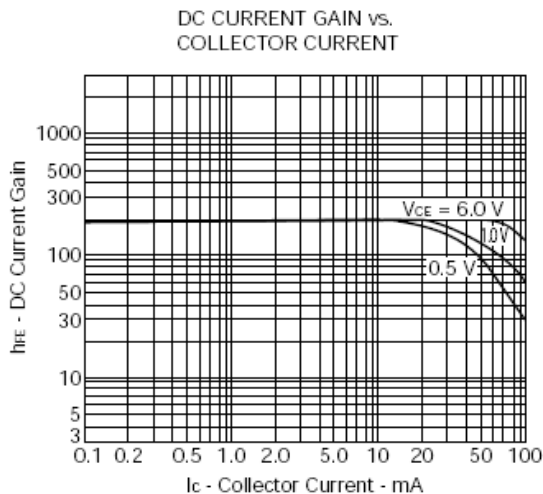
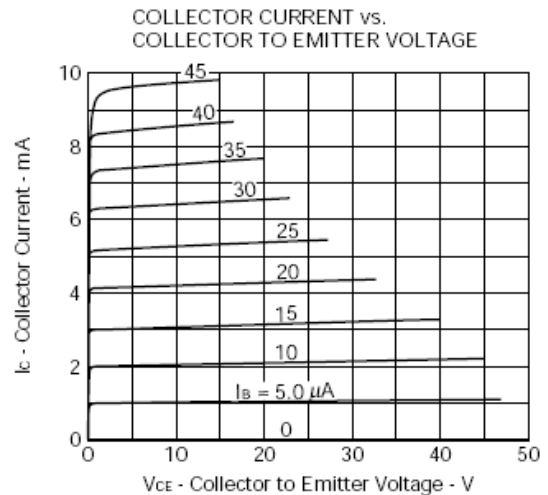
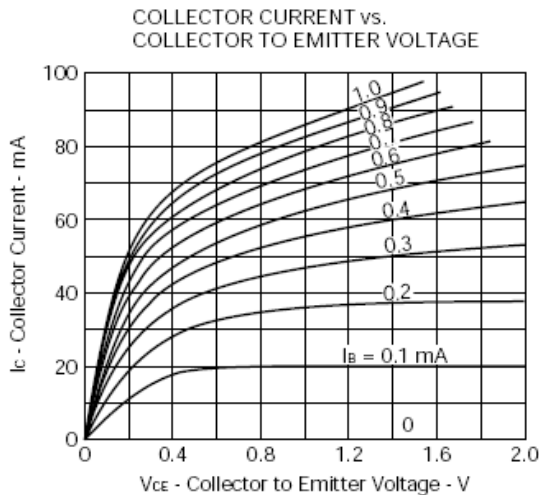
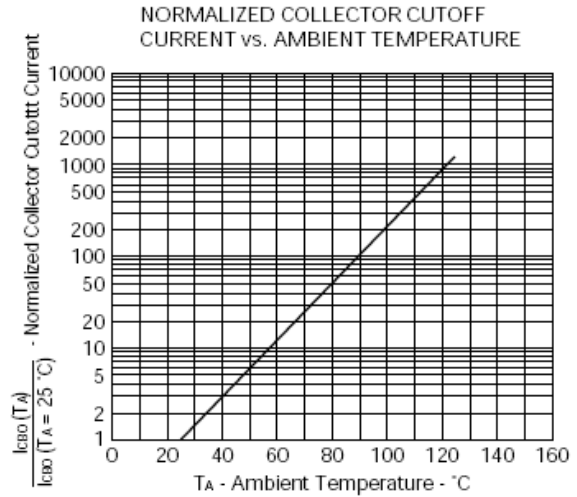
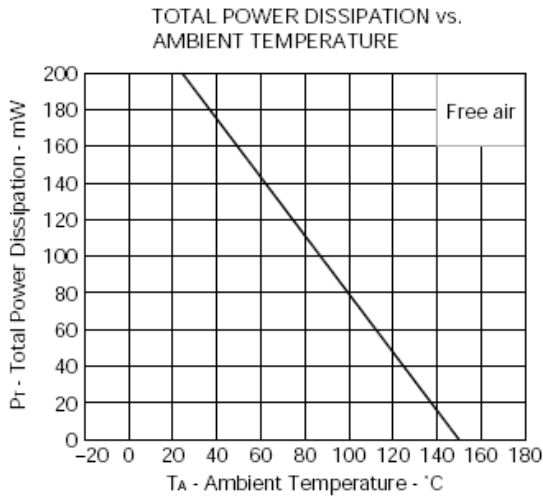
Rank	L4	L5	L6	L7
Range	90-180	135-270	200-400	300-600
Marking	L4	L5	L6	L7



Silicon Epitaxial Planar Transistor

2SC1623

TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified





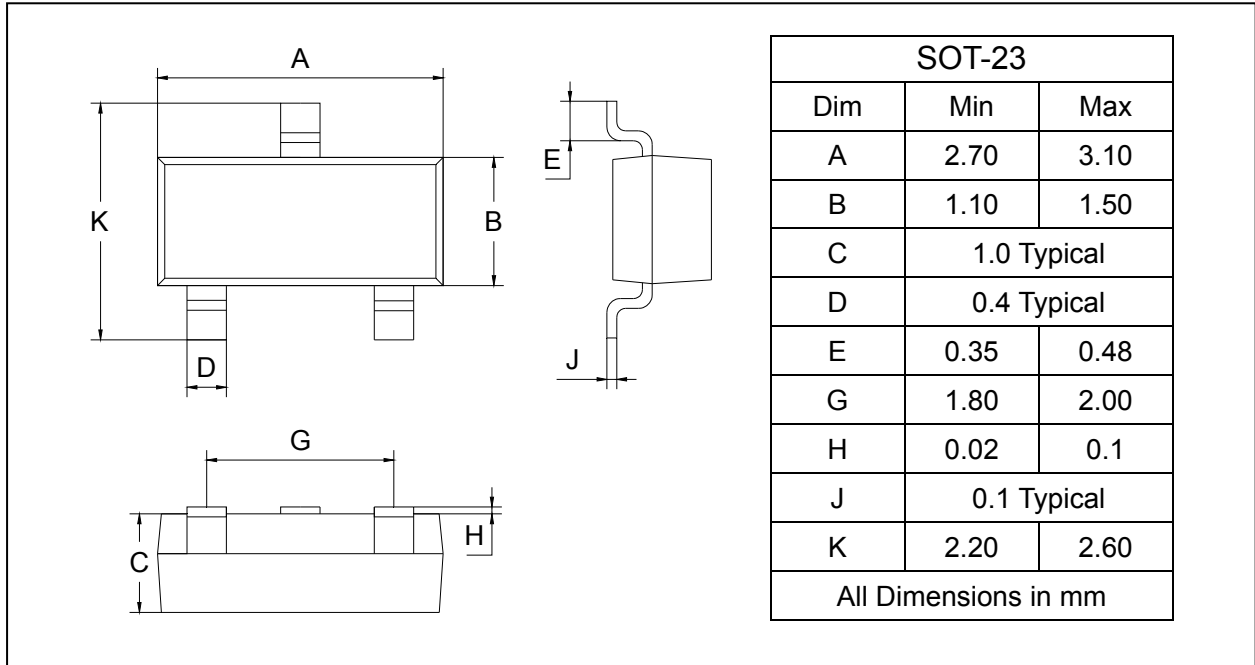
**Silicon Epitaxial Planar Transistor**

**2SC1623**

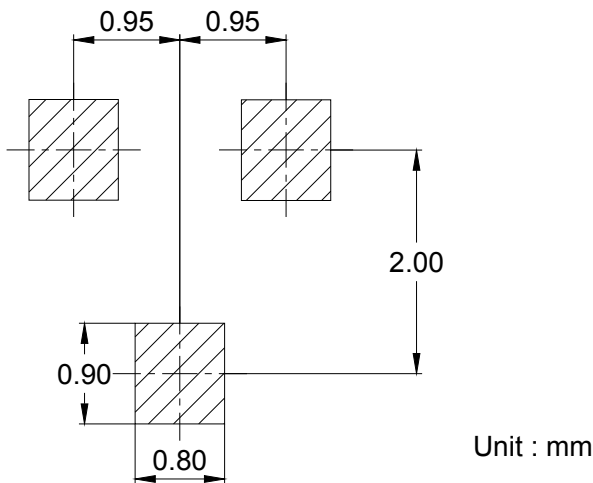
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
2SC1623	SOT-23	3000/Tape&Reel