



Micro Commercial Components  
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# 2SC1623

## Features

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

## NPN Silicon Epitaxial Transistors

## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_C$	Collector Current	100	mA
$P_C$	Collector power dissipation	200	mW
$T_J$	Junction Temperature	-55 to +150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
OFF CHARACTERISTICS					
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=60Vdc, I_E=0$ )	---	---	0.1	$\mu A_{dc}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=5.0Vdc, I_C=0$ )	---	---	0.1	$\mu A_{dc}$

## ON CHARACTERISTICS

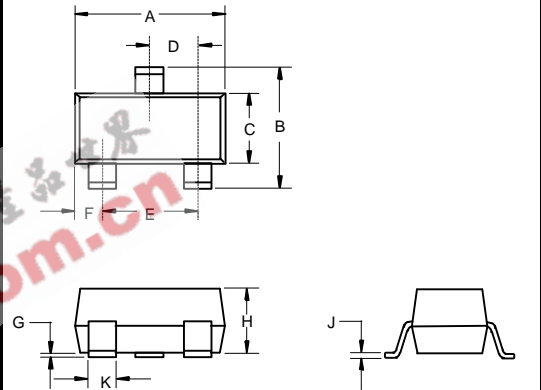
$h_F$	DC Current Gain* ( $I_C=1.0mA_{dc}, V_{CE}=6.0Vdc$ )	90	200	600	---
$V_{CE(sat)}$	Collector Saturation Voltage* ( $I_C=100mA_{dc}, I_B=10mA_{dc}$ )	---	0.15	0.3	Vdc
$V_{BE(SAT)}$	Base Saturation Voltage* ( $I_C=100mA_{dc}, I_B=10mA_{dc}$ )	---	0.86	1.0	Vdc
$V_{BE}$	Base Emitter Voltage* ( $V_{CE}=6.0Vdc, I_C=1.0mA_{dc}$ )	0.55	0.62	0.65	Vdc
$C_{ob}$	Collector Capacitance ( $V_{CB}=6.0Vdc, I_E=0, f=1.0MHz$ )	---	3.0	---	pF
$f_T$	Gain Bandwidth product ( $V_{CE}=6.0Vdc, I_E=10mA_{dc}$ )	---	250	---	MHz

## $h_{FE}$ CLASSIFICATION

Marking	L4	L5	L6	L7
$h_{FE}$	90-180	135-270	200-400	300-600

\* Pulse Test  $PW < 350\mu s$ , duty cycle  $< 2\%$

## SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

## Suggested Solder Pad Layout

