



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Micro Commercial Components

Micro Commercial Components  
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**2SC1623-L5**  
**2SC1623-L6**  
**2SC1623-L7**

## Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- High DC Current Gain:  $h_{FE}=600$  Max. ( $V_{CE}=6.0V$ ,  $I_C=1.0mA$ )
- High voltage:  $V_{CEO}=50V$
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## 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
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### 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* ( $I_C=1.0mA_{dc}, V_{CE}=6.0Vdc$ )	135	---	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

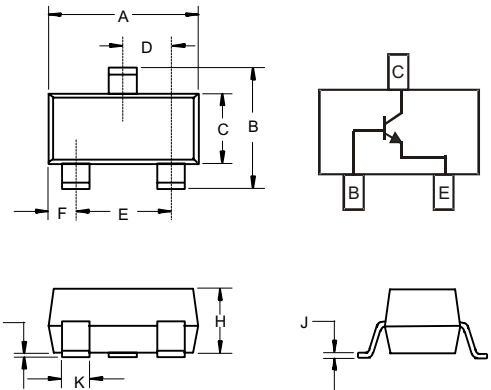
### $h_{FE}$ CLASSIFICATION

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

\* Pulse Test PW<350us, duty cycle<2%

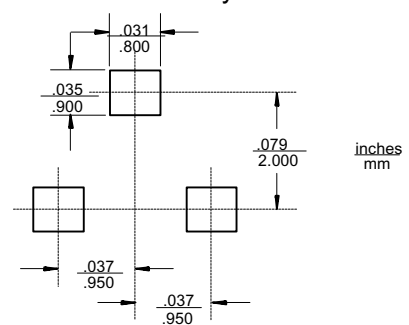
## NPN Silicon Epitaxial Transistors

### SOT-23

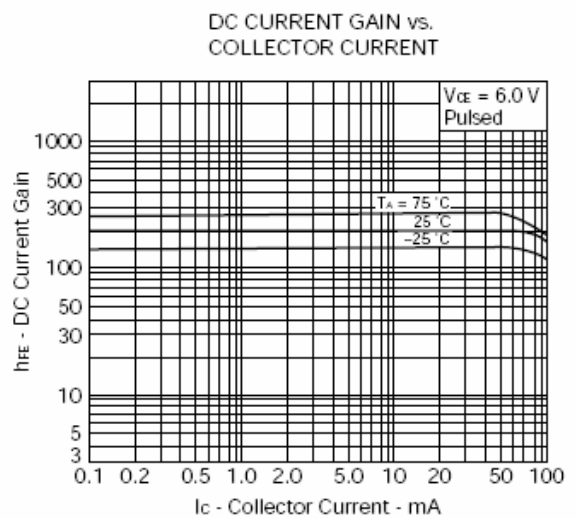
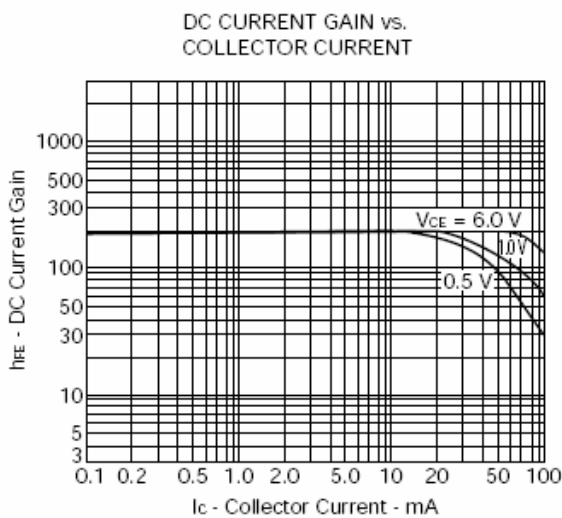
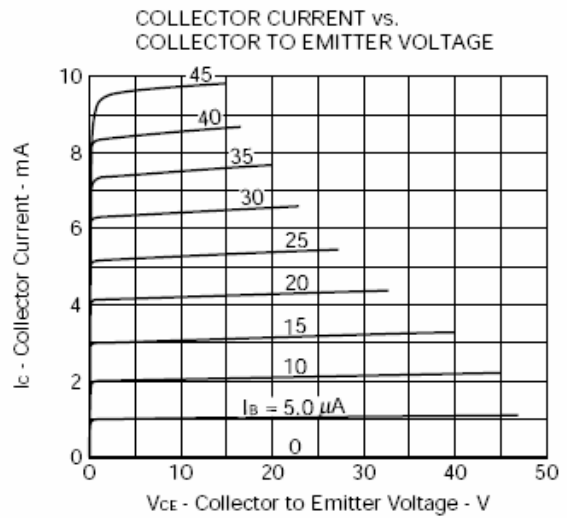
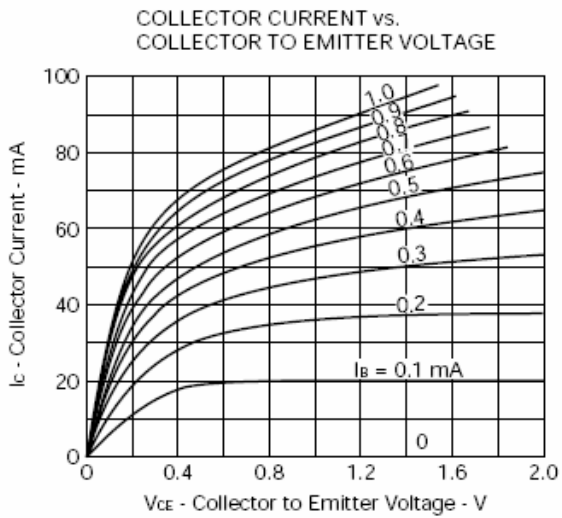
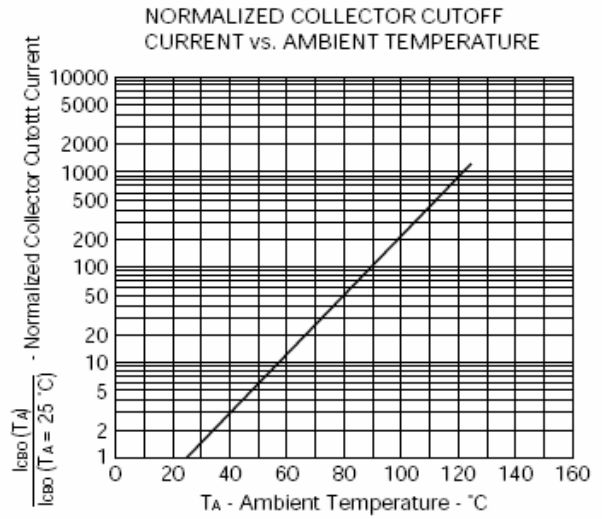
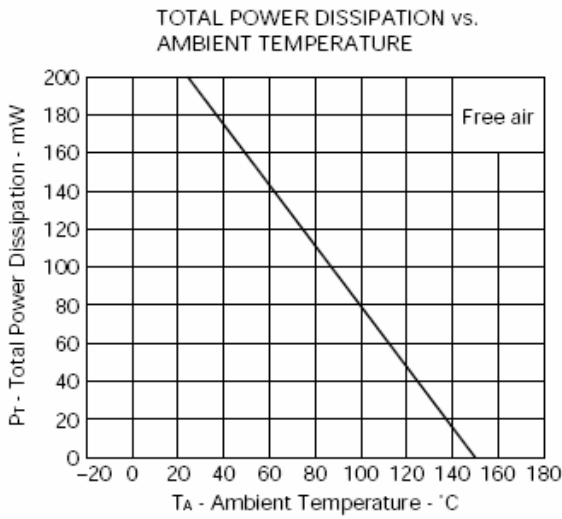


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout

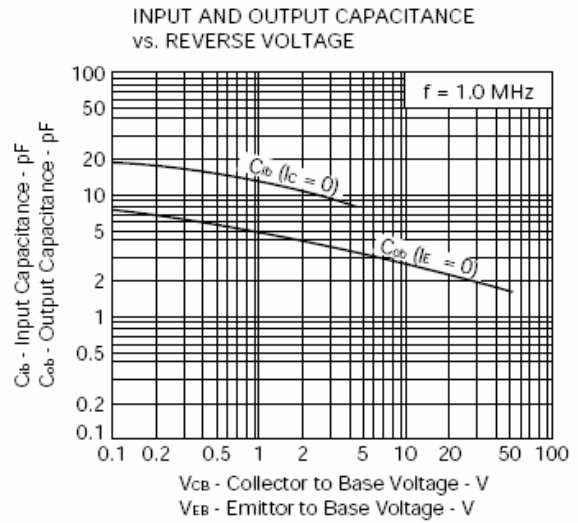
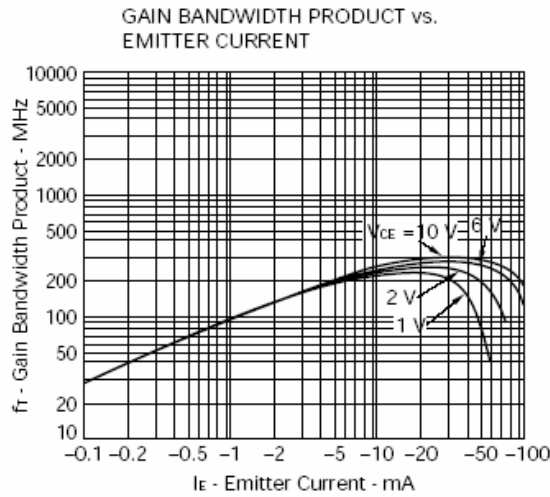
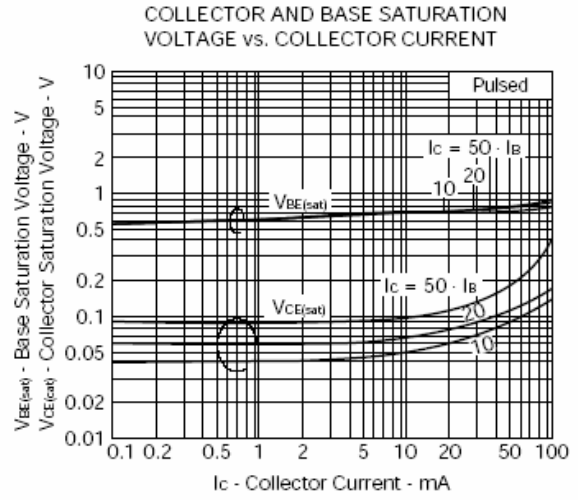
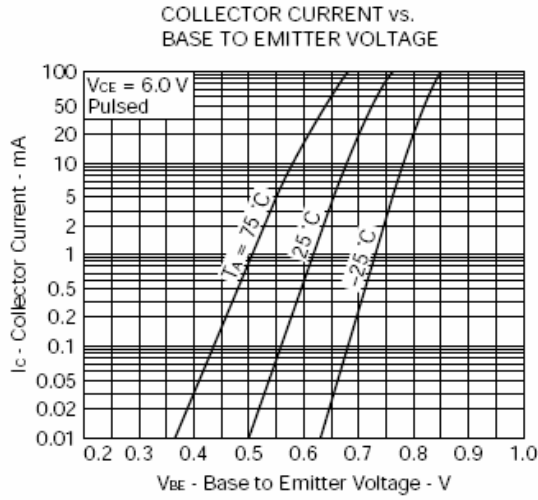


# Typical Characteristics





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Micro Commercial Components

### Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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