



Micro Commercial Components

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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	μA_{dc}
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0Vdc$, $I_C=0$)	---	---	0.1	μA_{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 $PW < 350\mu s$, duty cycle $< 2\%$

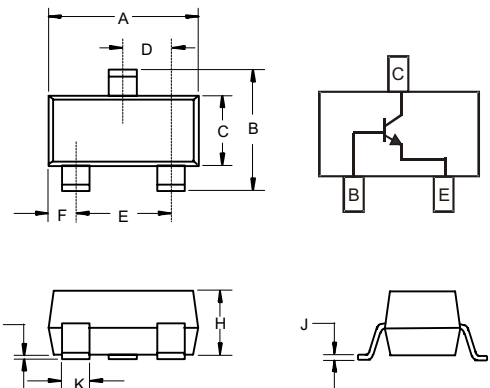
2SC1623-L5

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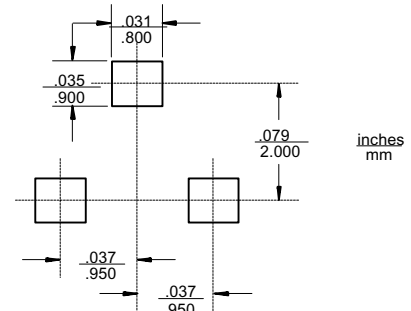
NPN Silicon Epitaxial Transistors

SOT-23

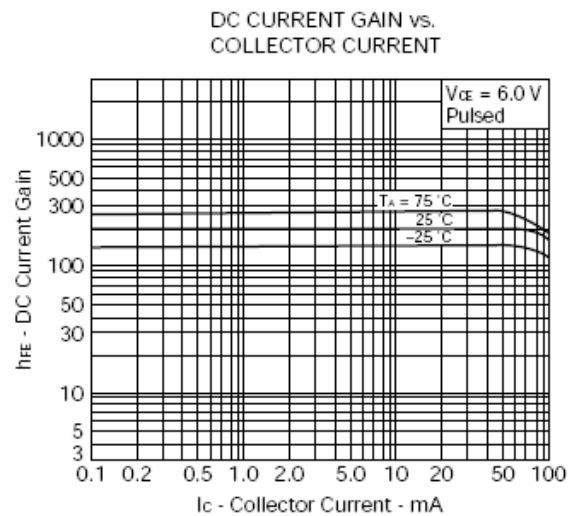
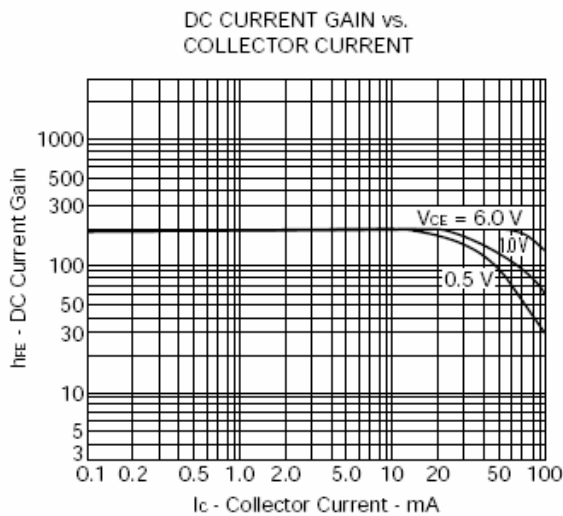
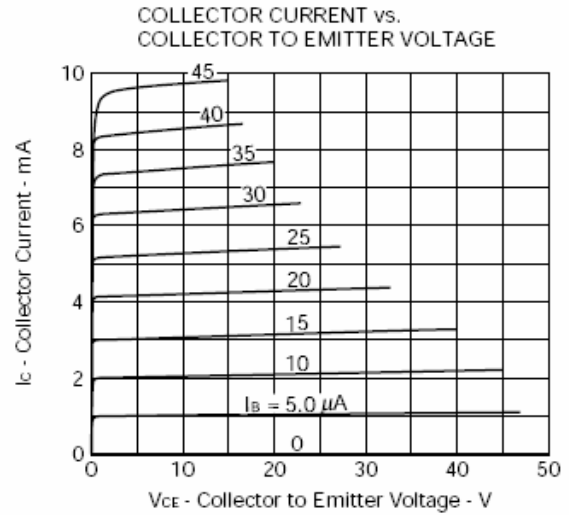
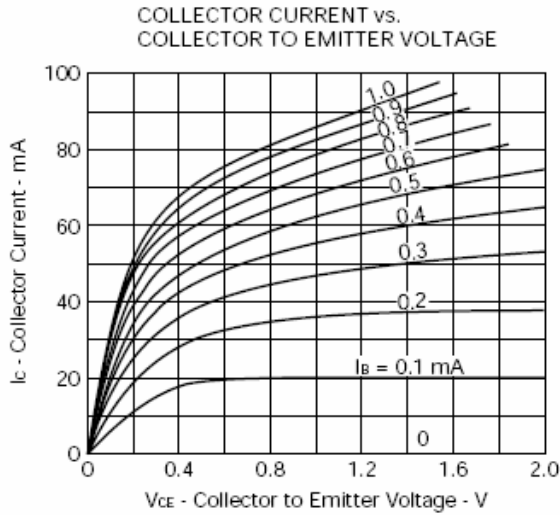
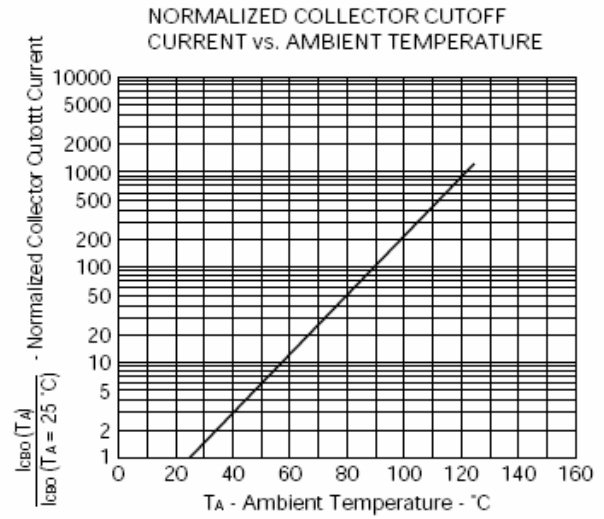
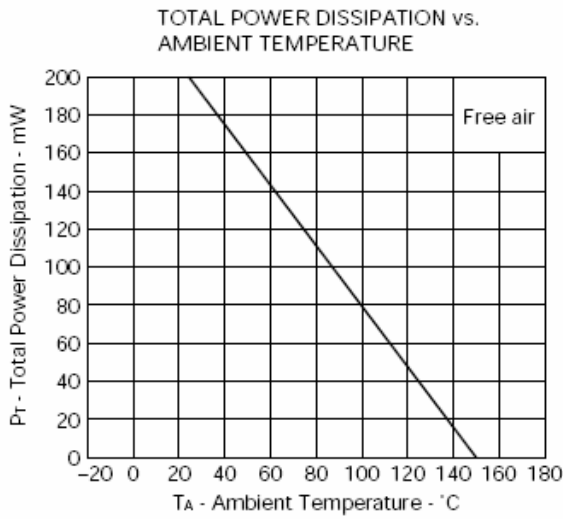


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

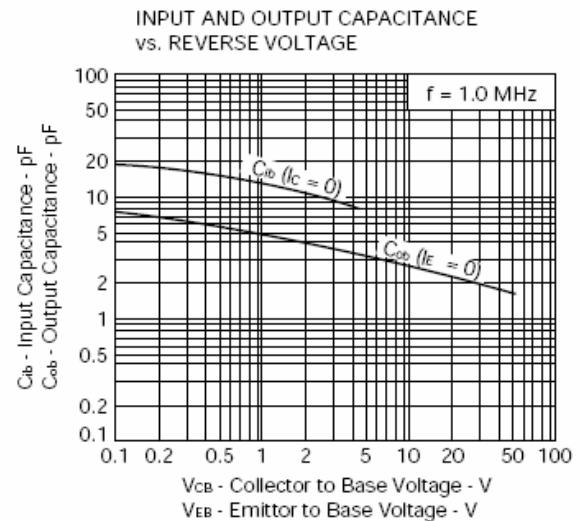
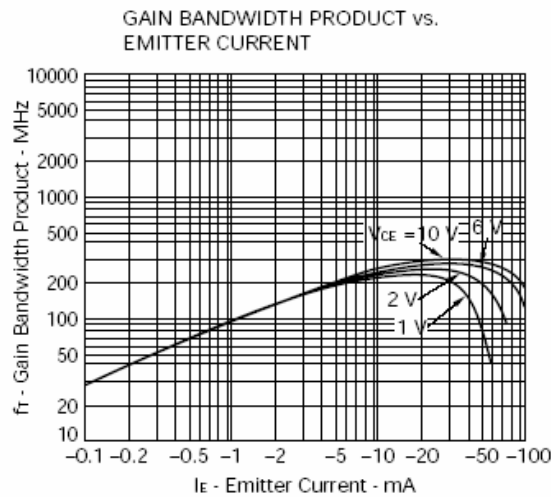
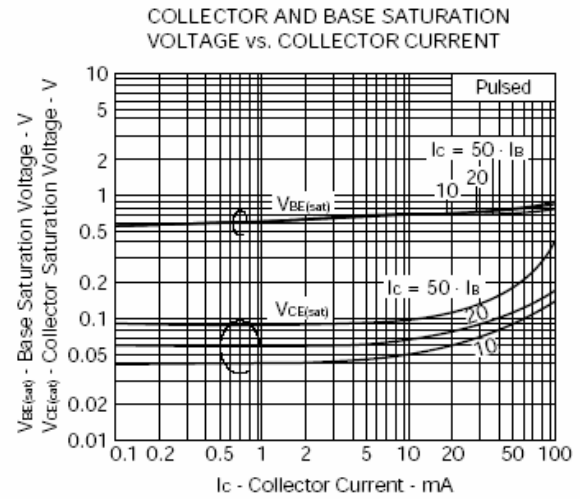
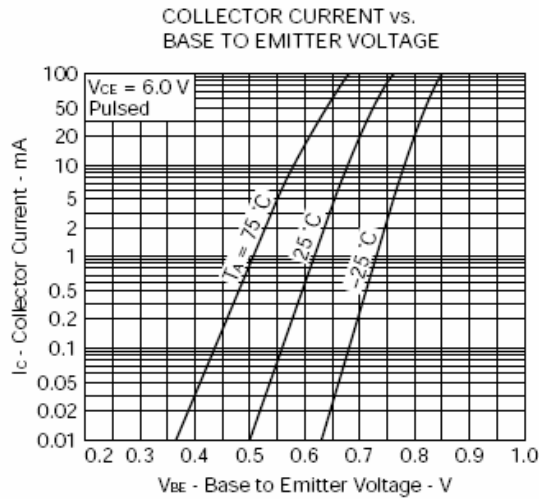
Suggested Solder Pad Layout



Typical Characteristics



Typical Characteristics



Ordering Information :

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

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

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[2SC1623-L6-TP](#)