

2SC1623

Silicon NPN Epitaxial Type Transistor

Features

- High DC current gain: $h_{FE}=200$ TYP

($V_{CE}=6.0V, I_C=1.0mA$).

- High Voltage: $V_{CEO}=50V$
- RoHS compliant package

Applications

NPN Silicon Epitaxial Planar Transistor.

Audio frequency general purpose amplifier.

Mechanical Data

- Case: SOT-23 Molded plastic

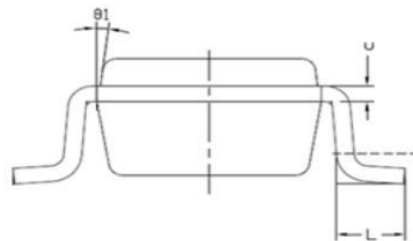
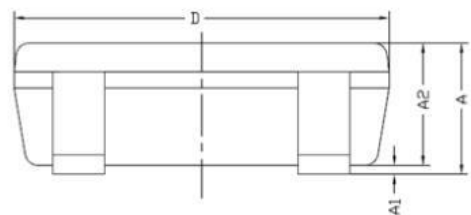
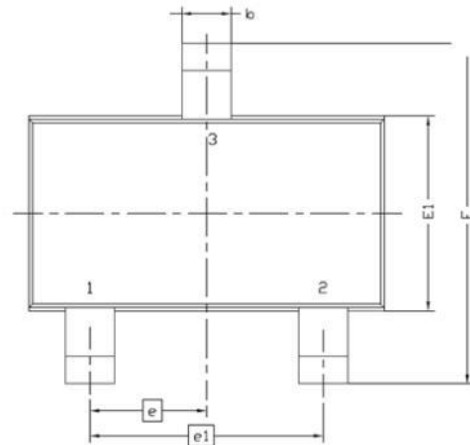
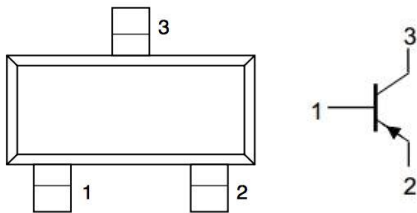
Packing & Order Information

3,000/Reel



**RoHS
COMPLIANT**

Graphic symbol



Symbol	MILLIMETERS	
	MIN	MAX
A	0.8	1.2
A1	0	0.1
A2	0.7	1.1
b	0.3	0.5
c	0.1	0.2
D	2.7	3.1
E	2.6	3
E1	1.4	1.8
e	0.95 BSC	
e1	1.9 BSC	
L	0.3	0.6
θ1	7° NOM	

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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Unit
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	100	mA
P_C	Collector Dissipation	200	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$

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

Symbol	Parameter	Test Conditions	MIN	TYP	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = 100\mu\text{A}, I_E = 0$	60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = 1\text{mA}, I_B = 0$	50			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = 100\mu\text{A}, I_C = 0$	5			V
I_{CBO}	Collector cut-off current	$V_{CB} = 6\text{V}, I_E = 0$				μA
I_{EBO}	Emitter cut-off current	$V_{EB} = 5\text{V}, I_C = 0$				μA
h_{FE}	DC current gain	$V_{CE} = 6\text{V}, I_C = 1\text{mA}$	90	200	600	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.15	0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C = 100\text{mA}, I_B = 10\text{mA}$		0.86	1.0	V
V_{BE}	Base Emitter Voltage	$V_{CE} = 6\text{V}, I_C = 1\text{mA}$	0.55	0.62	0.65	V
f_r	Transition frequency	$V_{CE} = 6\text{V}, I_E = -10\text{mA}$		250		MHz
C_{ob}	Output capacitance	$V_{CB} = 6\text{V}, I_E = 0$ $f = 1.0\text{MHz}$		3.0		pF

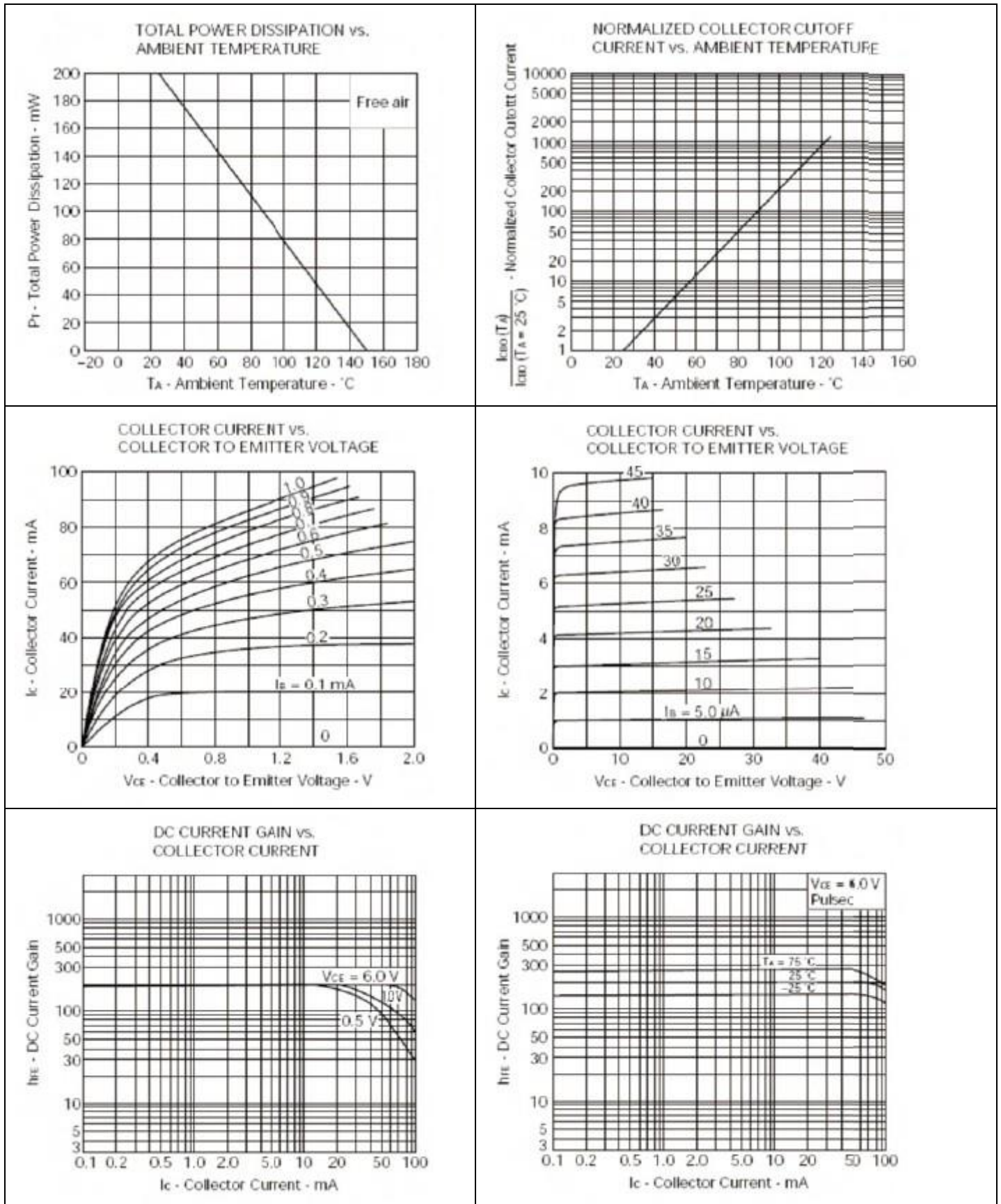
CLASSIFICATION OF $h_{FE}(1)$

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

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RATINGS AND CHARACTERISTIC CURVES



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