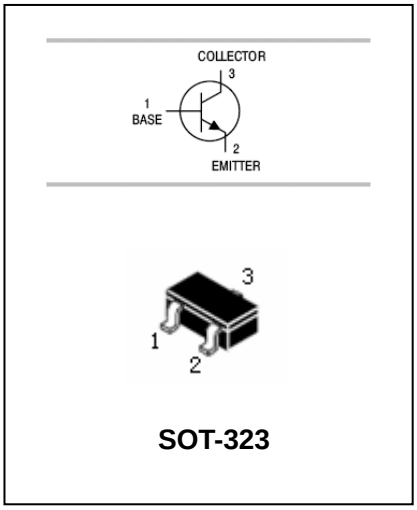
NPN Silicon Epitaxial Planar Transistor **2SC1623W**

FEATURES

- High DC current gain: h_{FE}=200TYP.
- High voltage: V_{CEO}=50V.
- Power dissipation.(P_C=200mW)

Lead-free



SOT-323

APPLICATIONS

- Audio frequency general purpose amplifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC1623W	L4/L5/L6/L7	SOT-323

MAXIMUM RATING @ Ta=25℃ 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	-55~150	℃

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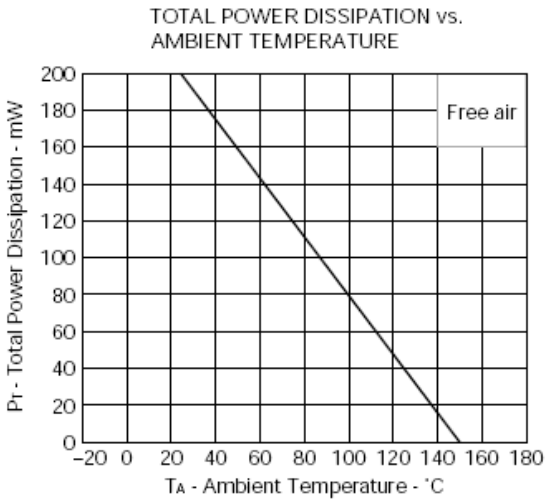
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

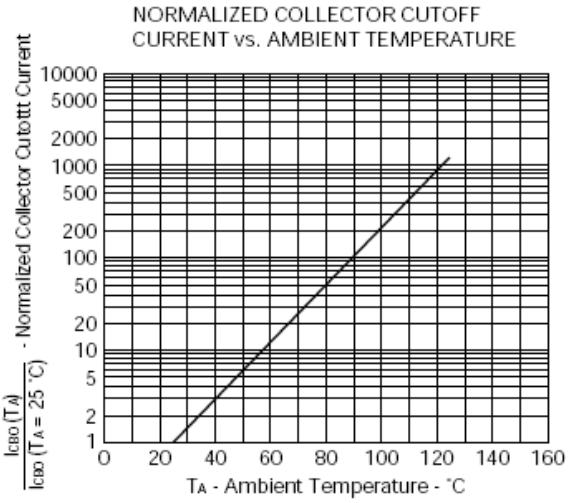
Parameter	**Symbol**	**Test conditions**	**MIN**	**TYP**	**MAX**	**UNIT**
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.1	μA
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
Transition frequency	f_T	V_{CE}=6V, I_E= -10mA		250		MHz
Output capacitance	C_{ob}	V_{CE}=6V, I_E= 0mA f=1.0MHz		3.0		pF

CLASSIFICANTION OF h_{FE}

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

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified





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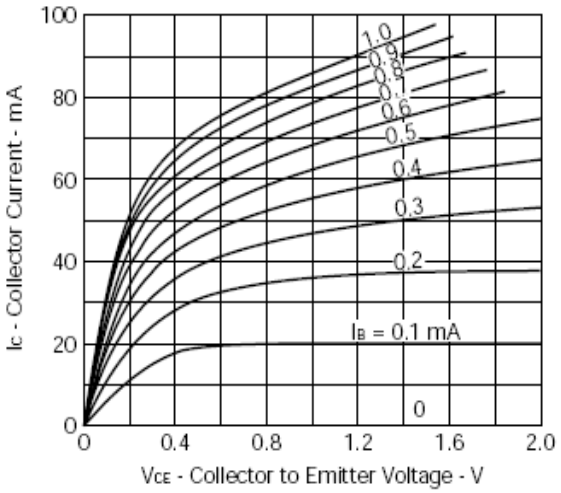
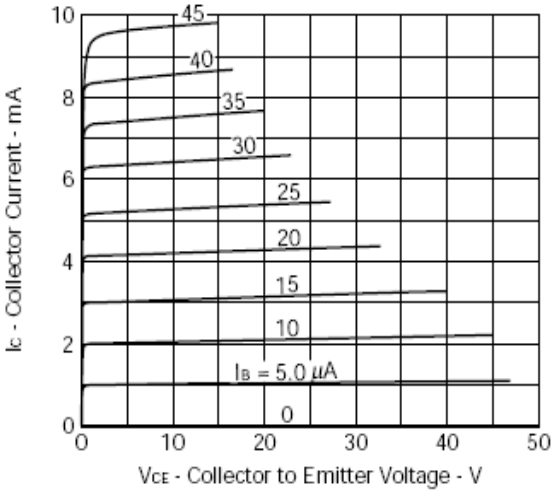
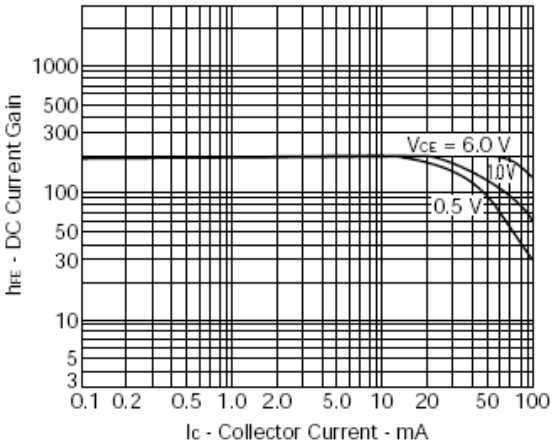
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



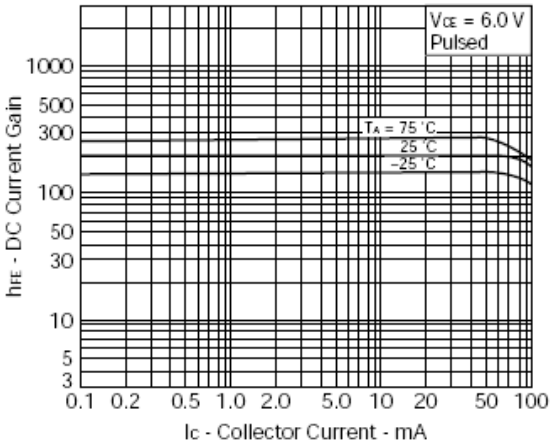
COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



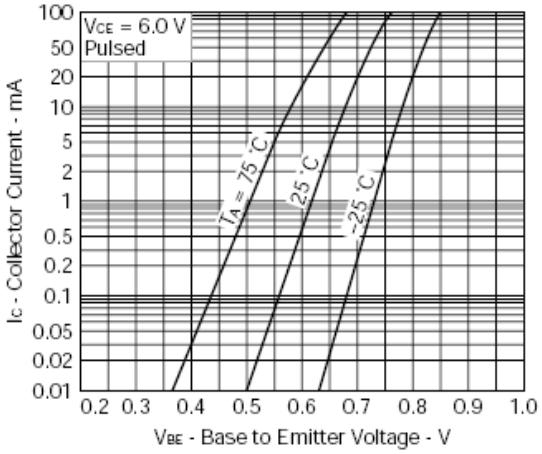
DC CURRENT GAIN vs.
COLLECTOR CURRENT



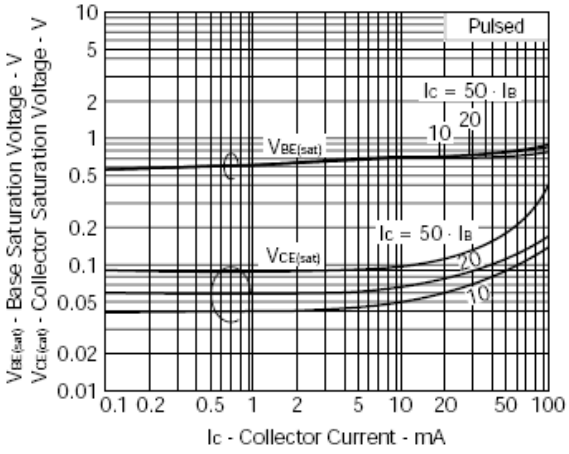
DC CURRENT GAIN vs.
COLLECTOR CURRENT



COLLECTOR CURRENT vs.
BASE TO EMITTER VOLTAGE



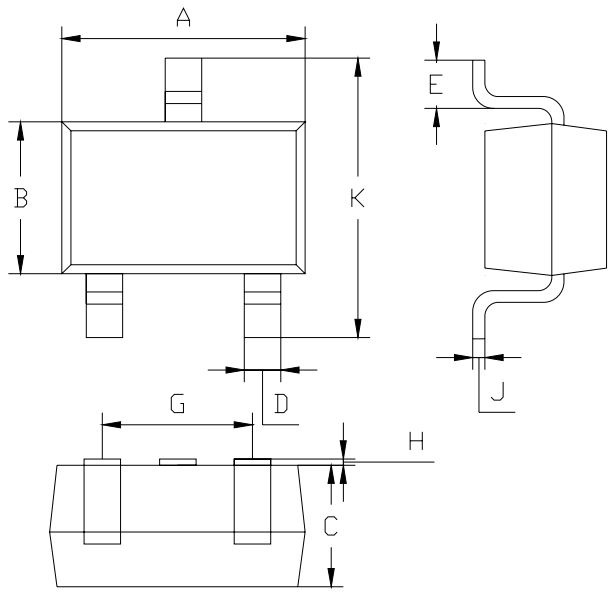
COLLECTOR AND BASE SATURATION
VOLTAGE vs. COLLECTOR CURRENT



NPN Silicon Epitaxial Planar Transistor **2SC1623W**

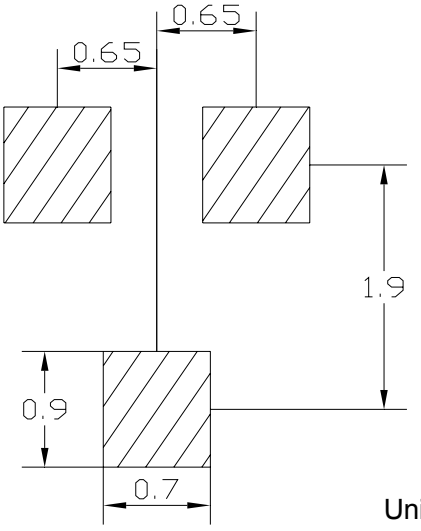
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1.0Typical	
D	0.15	0.35
E	0.25	0.40
G	1.2	1.4
H	0.02	0.1
J	0.1Typical	
K	2.1	2.3
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
2SC1623W	SOT-323	3000/Tape&Reel