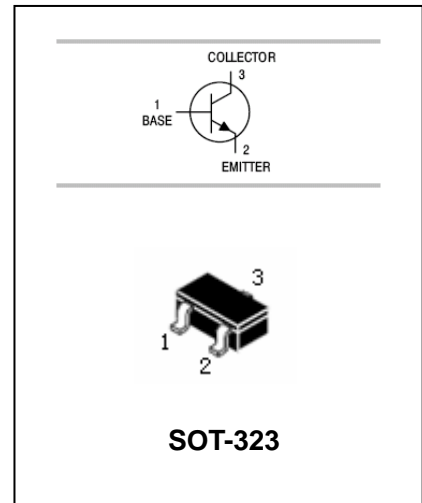


## NPN Silicon Epitaxial Planar Transistor

## 2SC1623W

### FEATURES

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



### APPLICATIONS

- Audio frequency general purpose amplifier.

### ORDERING INFORMATION

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

### MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ 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	$^{\circ}\text{C}$

## NPN Silicon Epitaxial Planar Transistor

## 2SC1623W

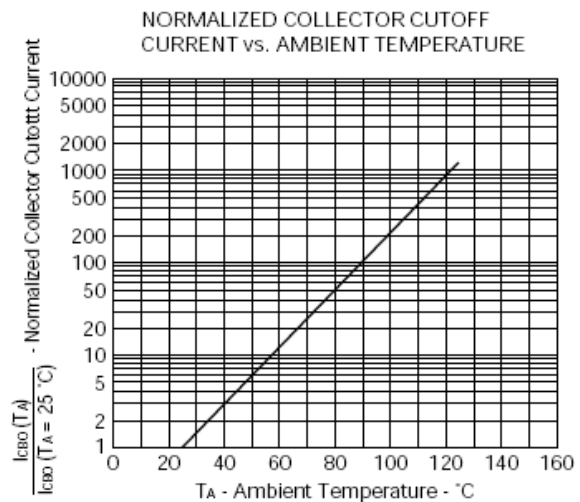
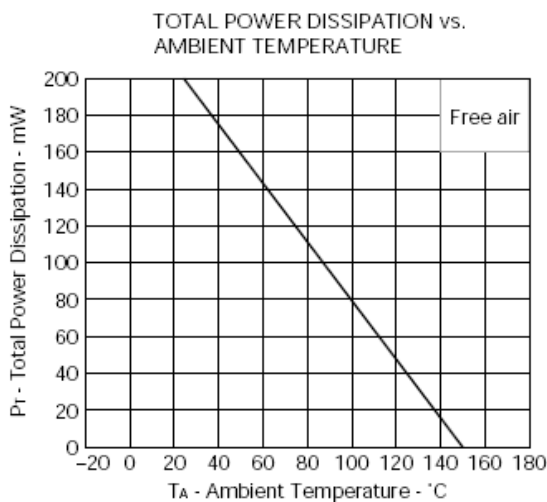
### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=2mA$	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

### CLASSIFICATION OF $h_{FE}$

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

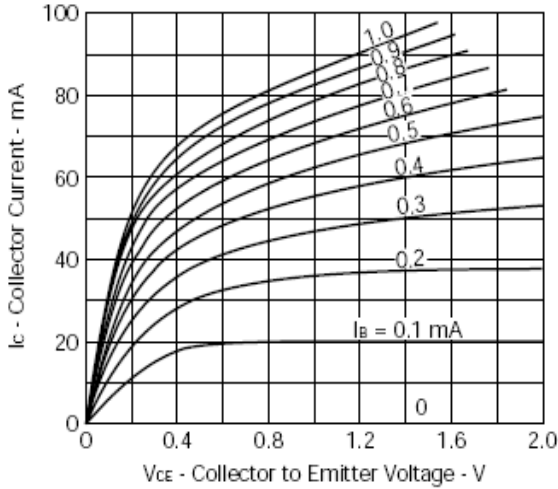
### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



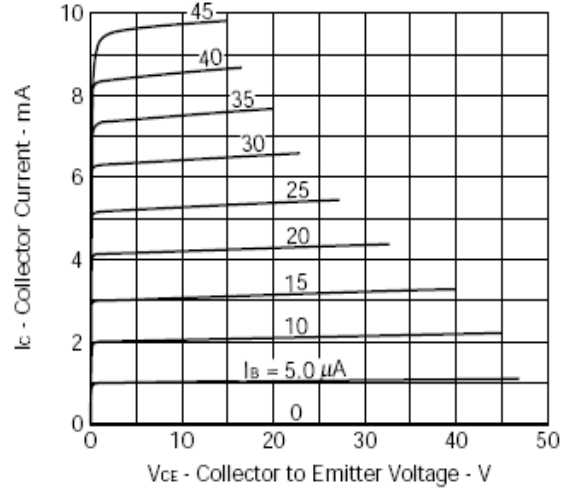
## NPN Silicon Epitaxial Planar Transistor

## 2SC1623W

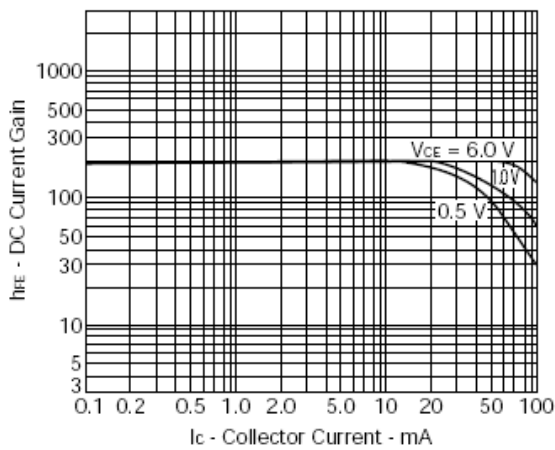
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



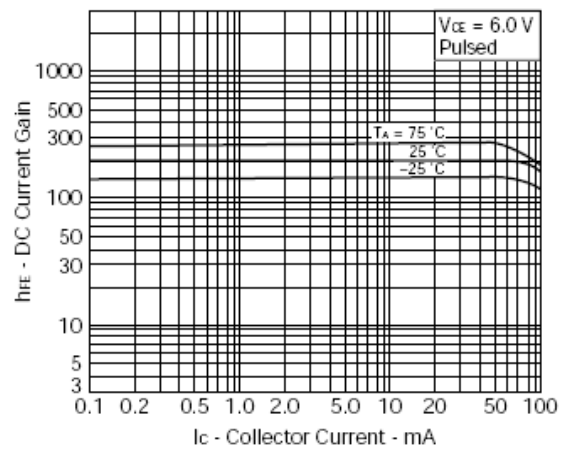
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



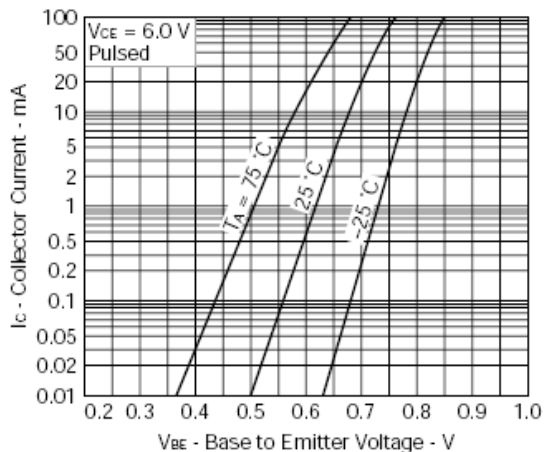
DC CURRENT GAIN vs. COLLECTOR CURRENT



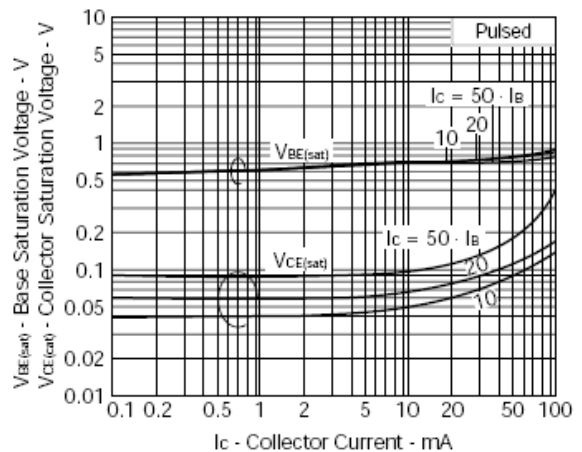
DC CURRENT GAIN vs. COLLECTOR CURRENT



COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



COLLECTOR AND BASE SATURATION VOLTAGE vs. COLLECTOR CURRENT



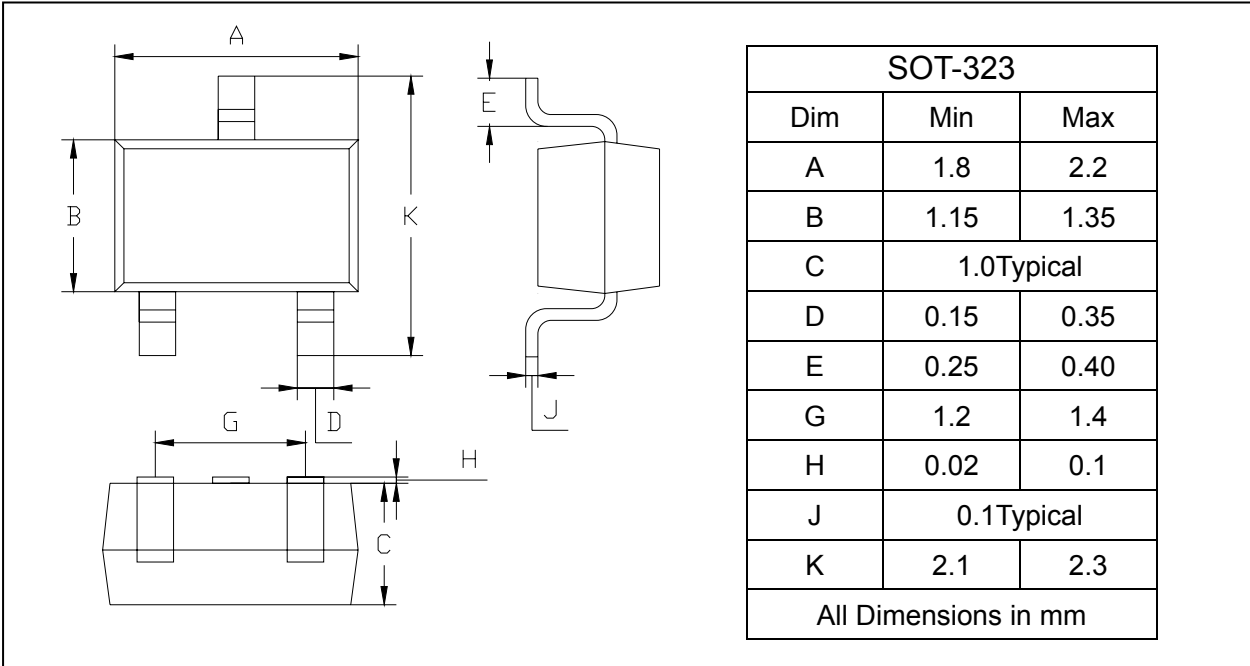
## NPN Silicon Epitaxial Planar Transistor

## 2SC1623W

### PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



### PACKAGE INFORMATION

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