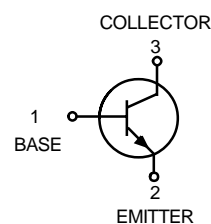
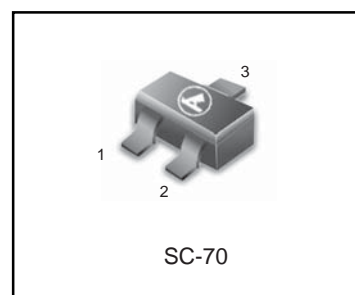


# High-Frequency Amplifier Transistor

## • Features

- 1.High gain bandwidth product.(Typ. $f_T=8.0\text{GHz}$ )
- 2.High gain,low noise
- 3.Can operate at low voltage
- 4.We declare that the material of product compliance with RoHS requirements.
- 5.S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable

**L2SC5635WT1G**  
**S-L2SC5635WT1G**



## MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	15	V
Collector-Emitter Voltage	$V_{CEO}$	6	V
Emitter-base voltage	$V_{EBO}$	1.5	V
Collector Current	$I_C$	50	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{sig}$	-55~+125	$^\circ\text{C}$

## DEVICE MARKING

L2SC5635WT1G;S-L2SC5635WT1G=HF1

## • ORDERING INFORMATION

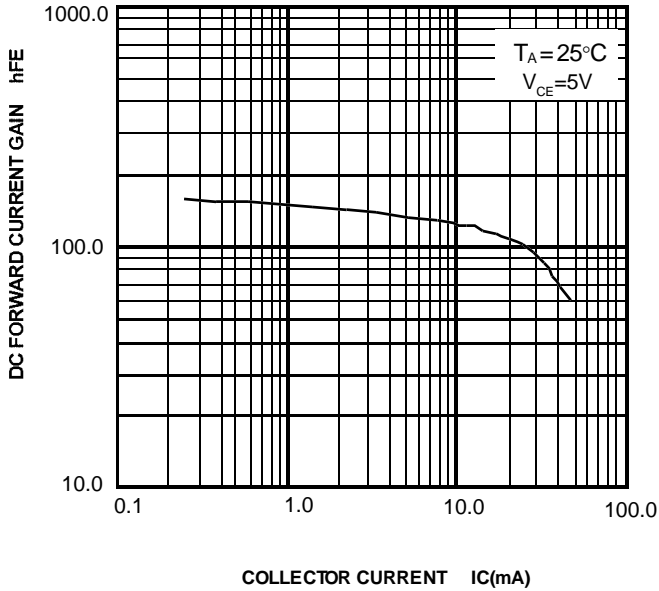
Device	Package	Shipping
L2SC5635WT1G S-L2SC5635WT1G	SC-70	3000/Tape & Reel
L2SC5635WT3G S-L2SC5635WT3G	SC-70	10000/Tape & Reel

## ELECTRICAL CHARACTERISTICS( $T_A = 25^\circ\text{C}$ )

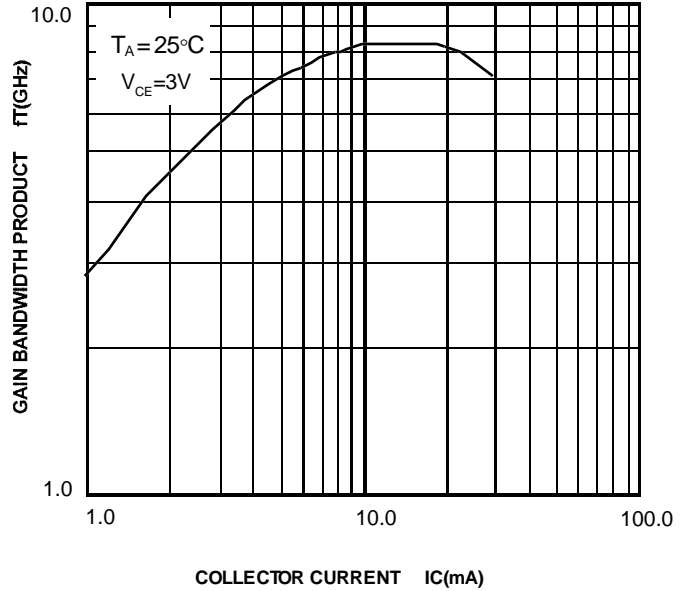
Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector cutoff current	$I_{CBO}$	-	-	1.0	$\mu\text{A}$	$V_{CB}=10\text{V}, I_E=0\text{mA}$
Emitter cutoff current	$I_{EBO}$	-	-	1.0	$\mu\text{A}$	$V_{EB}=1\text{V}, I_C=0\text{mA}$
DC current transfer ratio	$h_{FE}$	50	-	250	-	$V_{CE}=5\text{V}, I_C=10\text{mA}$
Transition frequency	$f_T$	5.0	8.0	-	GHz	$V_{CE}=5\text{V}, I_E=10\text{mA}$
Output capacitance	$C_{ob}$	-	1.0	-	pF	$V_{CB}=5\text{V}, I_E=0\text{A}, f=1\text{MHz}$
Insertion power gain	$ S_{21} ^2$	9.0	12.0	-	dB	$V_{CE}=5\text{V}, I_C=10\text{A}, f=1\text{GHz}$
Noise factor	NF	-	1.4	-	dB	$V_{CE}=5\text{V}, I_C=5\text{mA}, f=1\text{GHz}$

# L2SC5635WT1G;S-L2SC5635WT1G

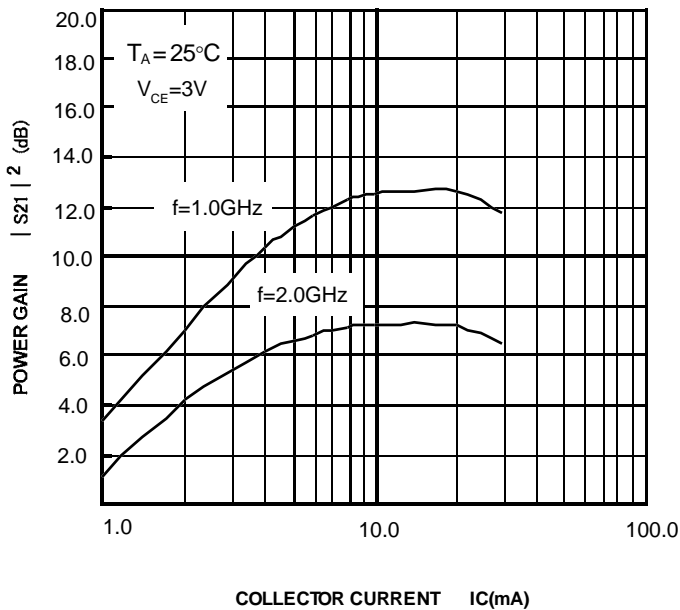
DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT



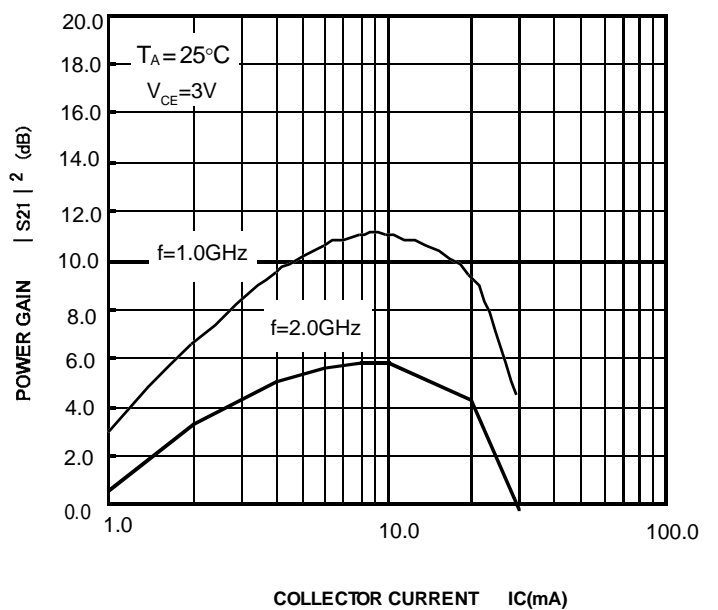
GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



POWER GAIN VS. COLLECTOR CURRENT



POWER GAIN VS. COLLECTOR CURRENT

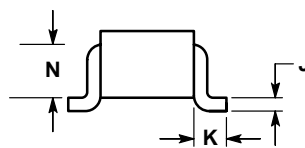
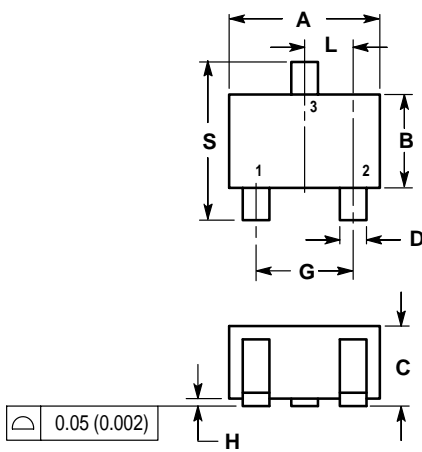


# L2SC5635WT1G;S-L2SC5635WT1G

## SC-70

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.032	0.040	0.80	1.00
D	0.012	0.016	0.30	0.40
G	0.047	0.055	1.20	1.40
H	0.000	0.004	0.00	0.10
J	0.004	0.010	0.10	0.25
K	0.017 REF		0.425 REF	
L	0.026 BSC		0.650 BSC	
N	0.028 REF		0.700 REF	
S	0.079	0.095	2.00	2.40

