

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.

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	225	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+125	$^\circ\text{C}$

DEVICE MARKING

L2SC5635LT1G=HF1

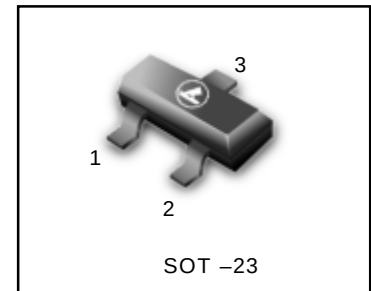
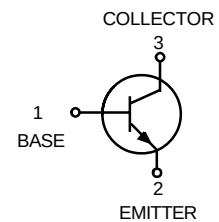
● ORDERING INFORMATION

Device	Package	Shipping
L2SC5635LT1G	SOT-23	3000/Tape & Reel
L2SC5635LT3G	SOT-23	10000/Tape & Reel

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

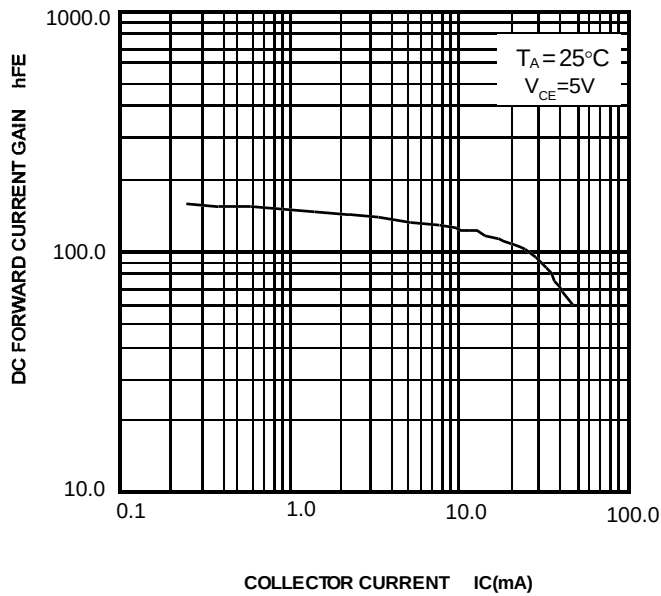
Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB}=10\text{V}, I_E=0\text{mA}$
Emitter cutoff current	I_{EBO}	—	—	1.0	μA	$V_{EB}=1\text{V}, I_C=0\text{mA}$
DC current transfer ratio	h_{FE}	50	—	250	—	$V_{CE}=5\text{V}, I_C=10\text{mA}$
Transition frequency	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	$V_{CE}=5\text{V}, I_C=5\text{mA}, f=1\text{GHz}$

L2SC5635LT1G

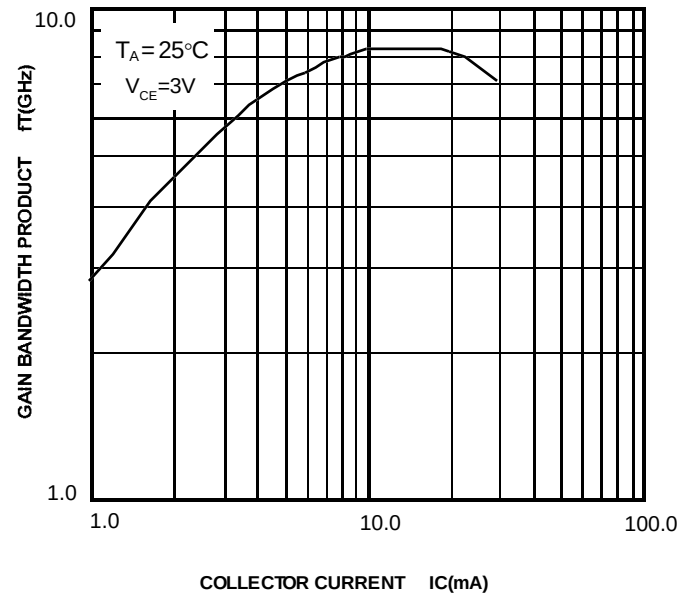


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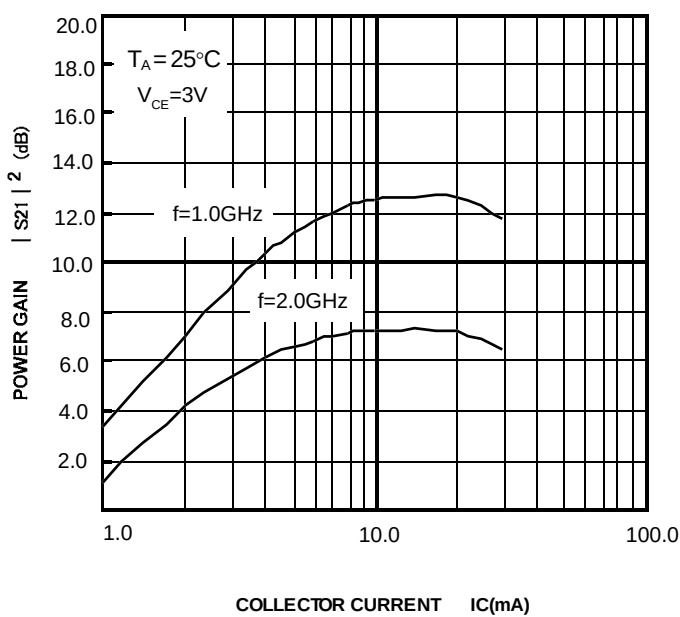
DC FORWARD CURRENT GAIN
VS. COLLECTOR CURRENT



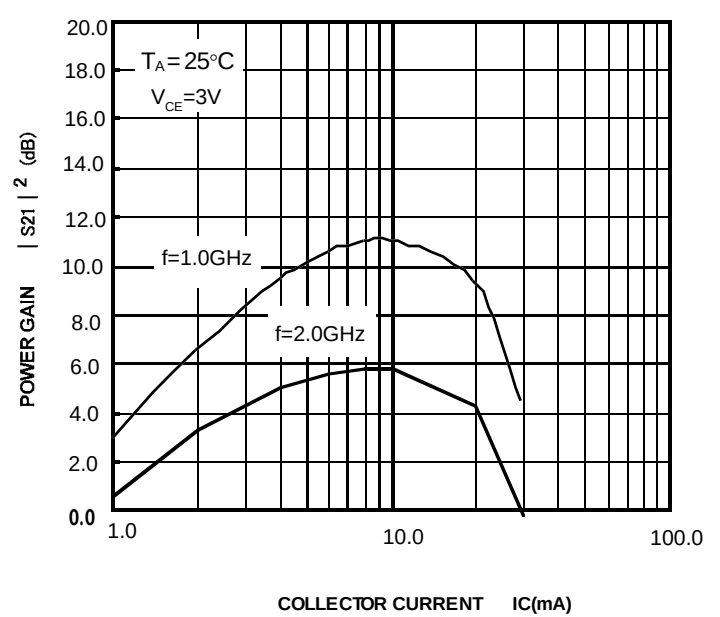
GAIN BANDWIDTH PRODUCT
VS. COLLECTOR CURRENT



POWER GAIN VS. COLLECTOR CURRENT



POWER GAIN VS. COLLECTOR CURRENT

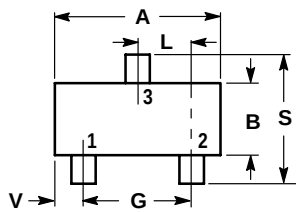
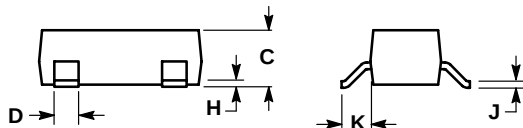


L2SC5635LT1G

SOT-23

NOTES:

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



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
E	0.0701	0.0807	1.78	2.04
F	0.0005	0.0040	0.013	0.100
G	0.0034	0.0070	0.085	0.177
H	0.0140	0.0285	0.35	0.69
I	0.0350	0.0401	0.89	1.02
J	0.0830	0.1039	2.10	2.64
K	0.0177	0.0236	0.45	0.60

