

High-Frequency Amplifier Transistor

L2SC3356QALT1G
L2SC3356QBLT1G

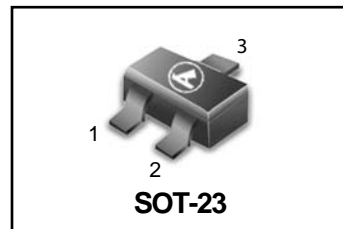
DESCRIPTION

The L2SC3356QALT1G is an NPN silicon epitaxial transistor designed for low noise amplifier at VHF, UHF and CATV band.

It has dynamic range and good current characteristic.

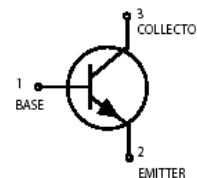
FEATURES

- We declare that the material of product compliance with RoHS requirements.
- Low Noise and High Gain
NF = 1.1 dB TYP., $G_a = 11$ dB TYP. @ $V_{CE} = 10$ V, $I_c = 7$ mA, $f = 1.0$ GHz
- High Power Gain
MAG = 13 dB TYP. @ $V_{CE} = 10$ V, $I_c = 20$ mA, $f = 1.0$ GHz



ORDERING INFORMATION

Device	Marking	Shipping
L2SC3356QALT1G	RQ	3000/Tape & Reel
L2SC3356QALT3G	RQ	10000/Tape & Reel
L2SC3356QBLT1G	RQ	3000/Tape & Reel
L2SC3356QBLT3G	RQ	10000/Tape & Reel



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C)

Collector to Base Voltage	V_{CBO}	20	V
Collector to Emitter Voltage	V_{CEO}	12	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current	I_c	100	mA
Total Power Dissipation	P_T	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-65 to +150	°C

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ELECTRICAL CHARACTERISTICS (T_A = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	I _{CBO}			1.0	μA	V _{CB} = 10 V, I _E = 0
Emitter Cutoff Current	I _{EBO}			1.0	μA	V _{EB} = 1.0 V, I _C = 0
DC Current Gain	h _{FE}	150	180	220		V _{CE} = 3 V, I _C = 10 mA
Gain Bandwidth Product	f _T		7		GHz	V _{CE} = 10 V, I _C = 20 mA
Feed-Back Capacitance	C _{FB} **		0.55	1.0	pF	V _{CB} = 10 V, I _E = 0, f = 1.0 MHz
Insertion Power Gain	S _{21e} ²		11.5		dB	V _{CE} = 10 V, I _C = 20 mA, f = 1.0 GHz
Noise Figure	NF		1.1	2.0	dB	V _{CE} = 10 V, I _C = 7 mA, f = 1.0 GHz

* Pulse Measurement PW ≤ 350 μs, Duty Cycle ≤ 2 %

* The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

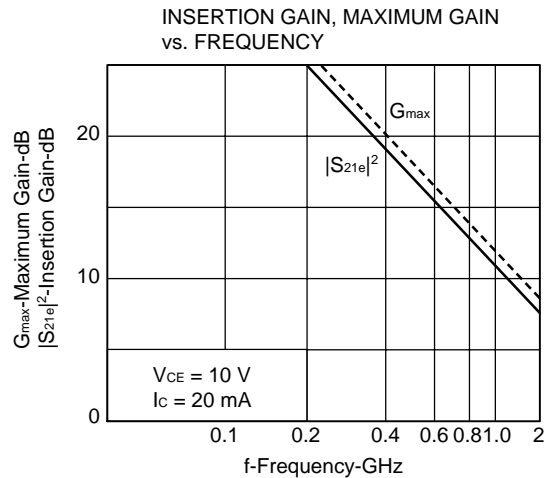
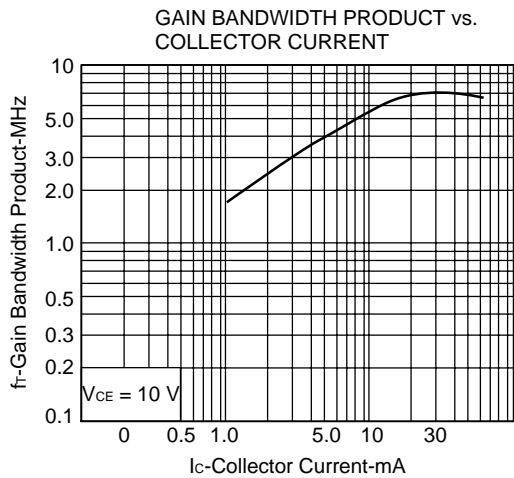
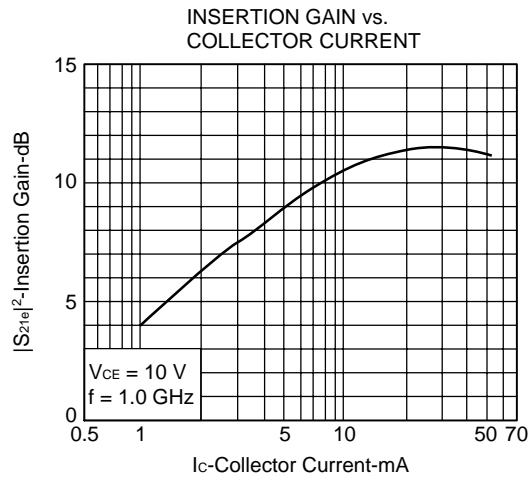
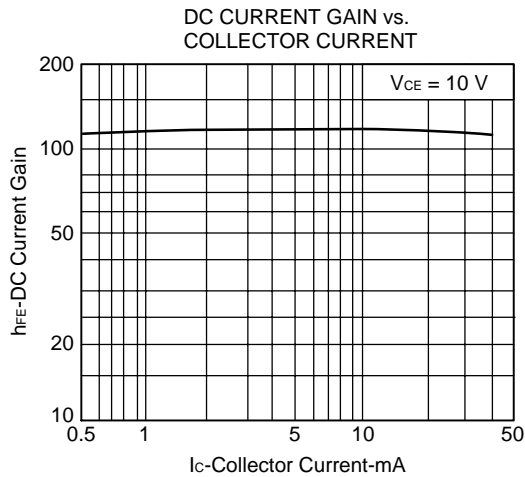
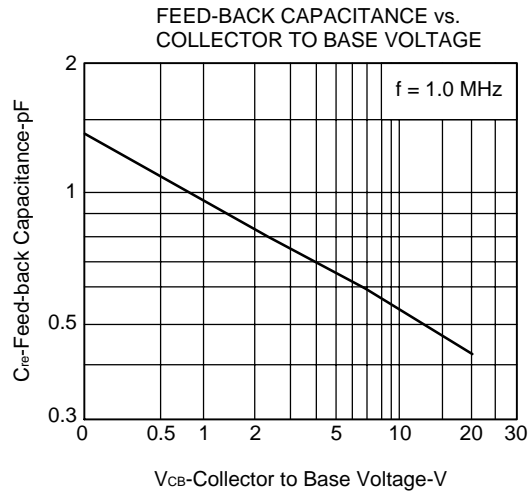
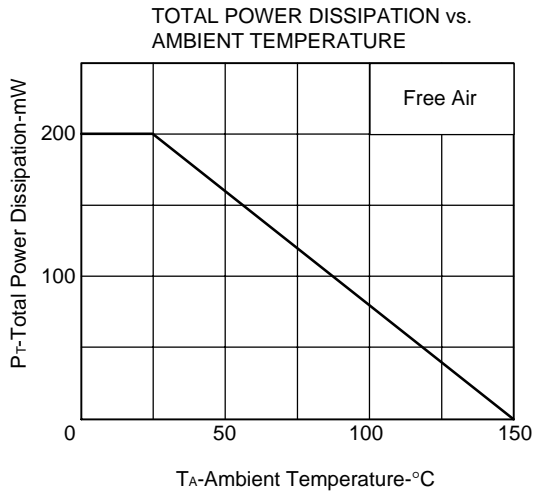
h_{FE} VALUES ARE CLASSIFIED AS FOLLOWS

NOTE:

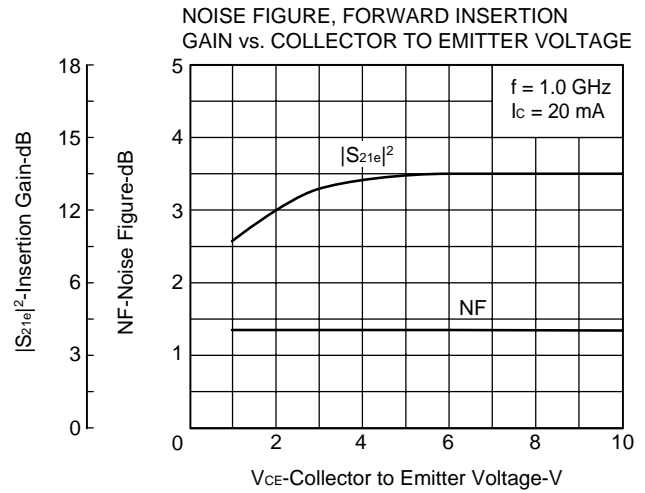
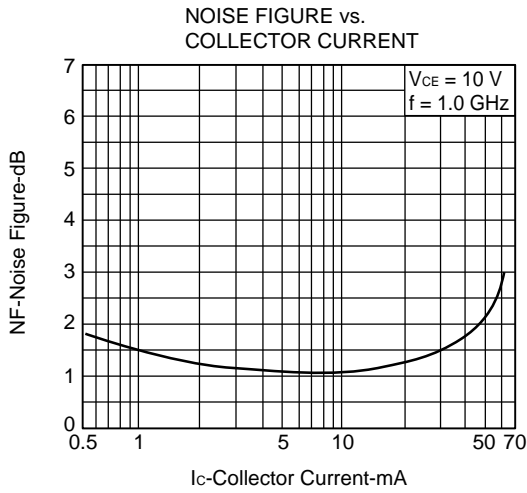
*	QA	QB
h _{FE}	150~180	180~220

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TYPICAL CHARACTERISTICS (T_A = 25 °C)

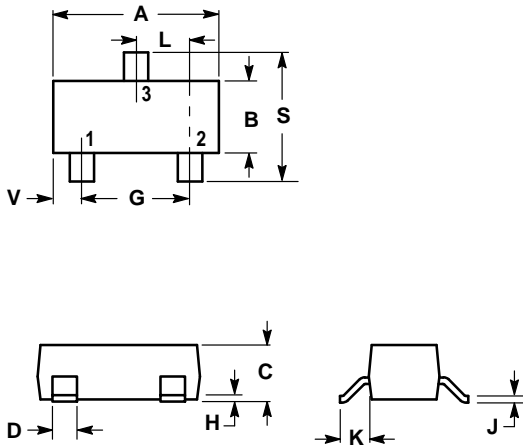


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NOTES:

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
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE
 2. EMITTER
 3. COLLECTOR

