

High-Frequency Amplifier Transistor

DESCRIPTION

The L2SC3356RLT1 is an NPN silicon epitaxial transistor designed for low noise amplifier at VHF, UHF and CATV band.

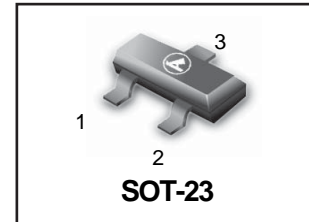
It has dynamic range and good current characteristic.

S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

ORDERING INFORMATION

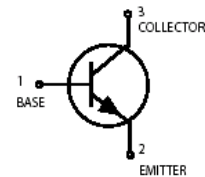
Device	Marking	Shipping
L2SC3356RLT1G S-L2SC3356RLT1G	24R	3000/Tape & Reel
L2SC3356RLT3G S-L2SC3356RLT3G	24R	10000/Tape & Reel

L2SC3356RLT1G
S-L2SC3356RLT1G



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



ABSOLUTE MAXIMUM RATINGS (T_A = 25 °C)

Collector to Base Voltage	V_{CBO}	20	V
Collector to Emitter Voltage	V_{CEO}	9	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

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}	75	170	290		$V_{CE} = 8$ V, $I_c = 25$ mA
Gain Bandwidth Product	f_T		7		GHz	$V_{CE} = 10$ V, $I_c = 20$ mA
Feed-Back Capacitance	C_{re}^{**}		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 $PW \leq 350 \mu s$, Duty Cycle $\leq 2\%$

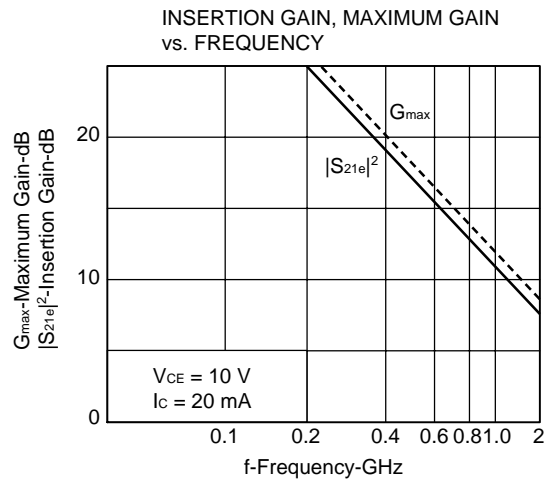
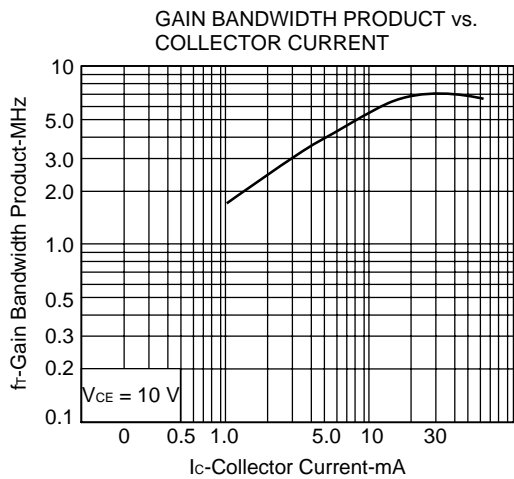
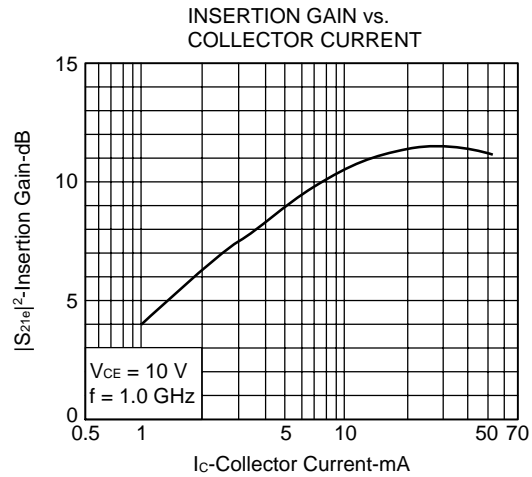
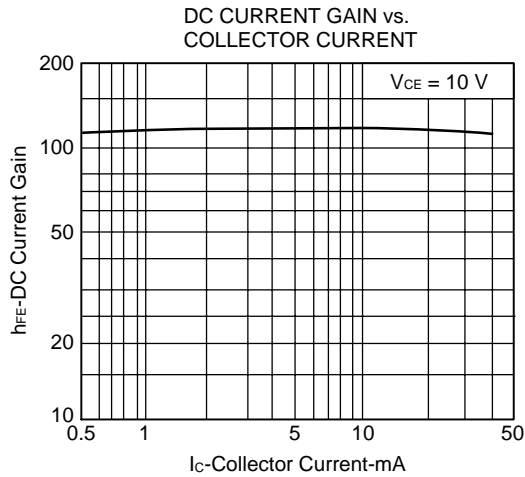
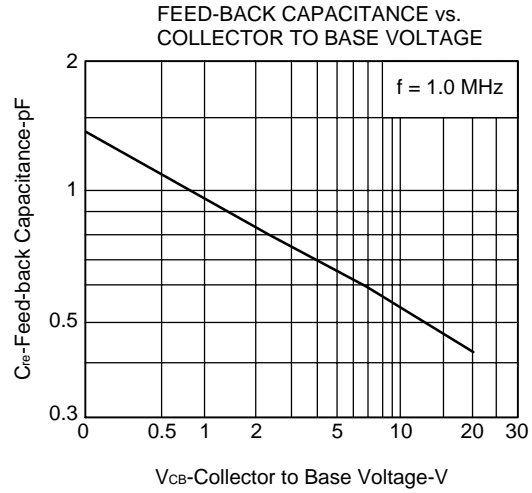
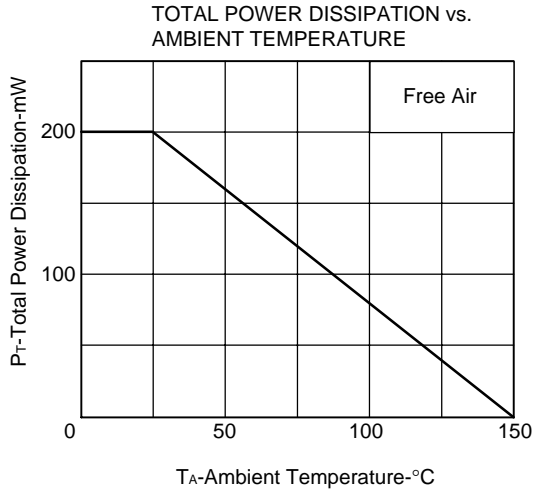
* The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

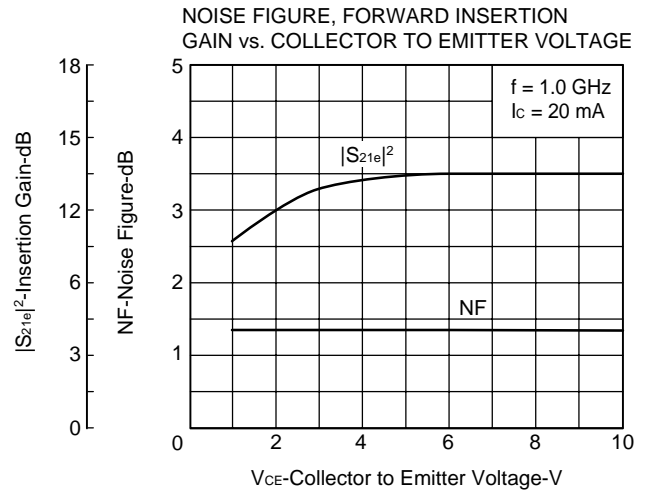
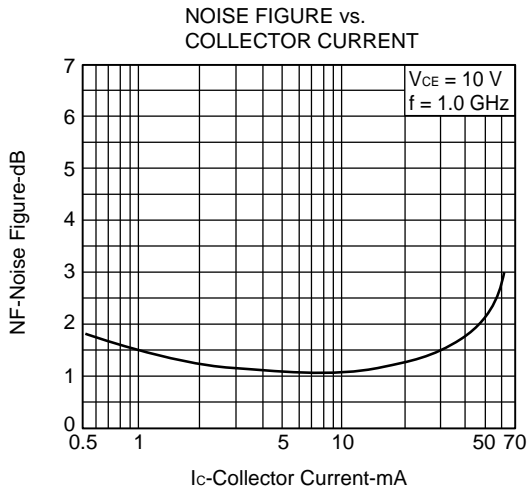
Driver Marking

L2SC3356RLT1G=24R

L2SC3356RLT1G;S-L2SC3356RLT1G

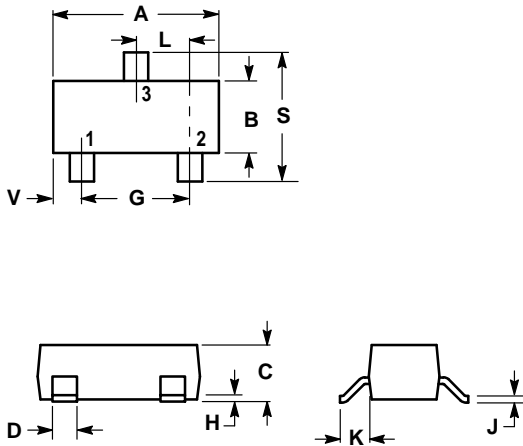
TYPICAL CHARACTERISTICS (T_A = 25 °C)



L2SC3356RLT1G;S-L2SC3356RLT1G


L2SC3356RLT1G;S-L2SC3356RLT1G

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
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

