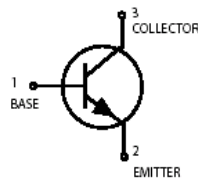


High-Frequency Amplifier Transistor

L2SC4226QT1

DESCRIPTION

The L2SC4226QT1 is a low supply voltage transistor designed for VHF, UHF low noise amplifier.

It is suitable for a high density surface mount assembly since the transistor has been applied small mini mold package.

FEATURES

- Low Noise
 $NF = 1.2 \text{ dB TYP. @ } f = 1 \text{ GHz, } V_{CE} = 3 \text{ V, } I_C = 7 \text{ mA}$
- High Gain
 $|S_{21e}|^2 = 9.0 \text{ dB TYP. @ } f = 1 \text{ GHz, } V_{CE} = 3 \text{ V, } I_C = 7 \text{ mA}$
- Small Mini Mold Package
EIAJ: SC-70

L2SC4226QT1**ABSOLUTE MAXIMUM RATINGS ($T_A = 25\text{ }^{\circ}\text{C}$)**

Collector to Base Voltage	V_{CB0}	20	V
Collector to Emitter Voltage	V_{CE0}	12	V
Emitter to Base Voltage	V_{EB0}	3	V
Collector Current	I_C	100	mA
Total Power Dissipation	P_T	150	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-65 to +150	$^{\circ}\text{C}$

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

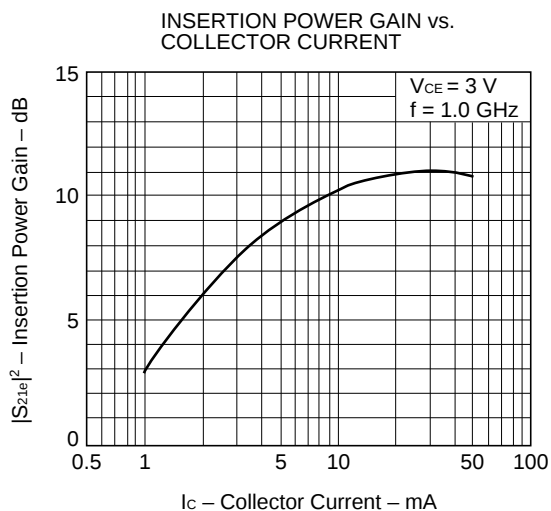
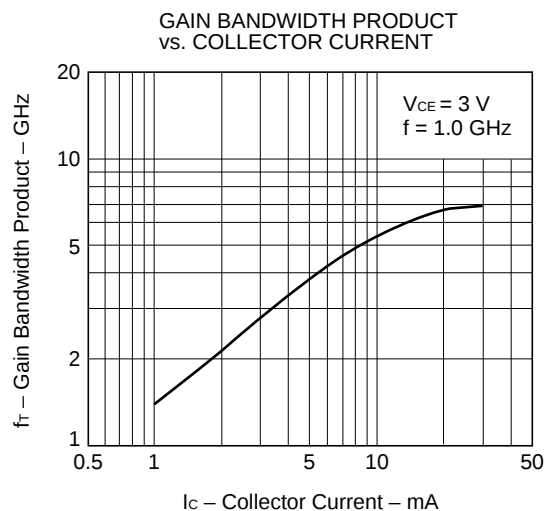
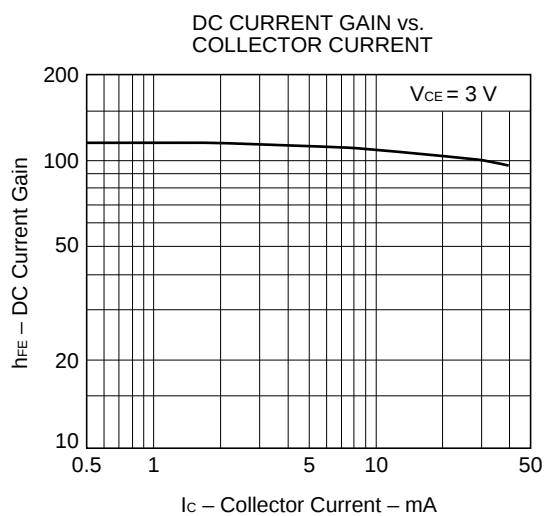
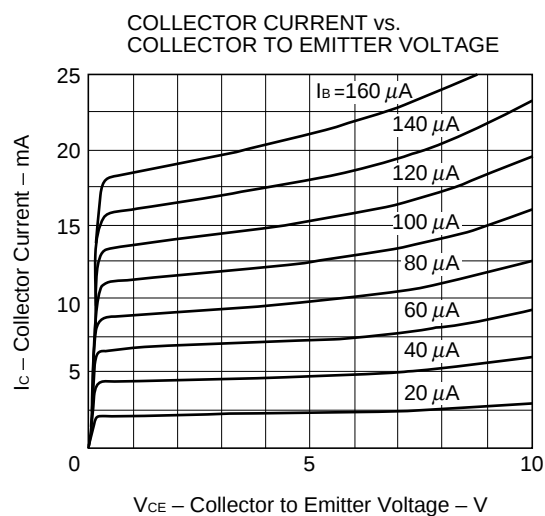
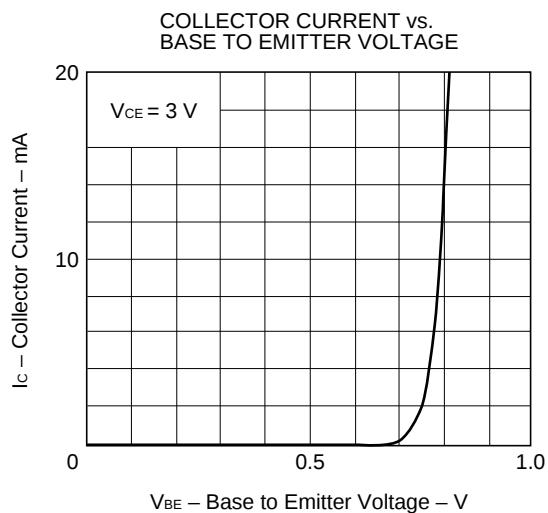
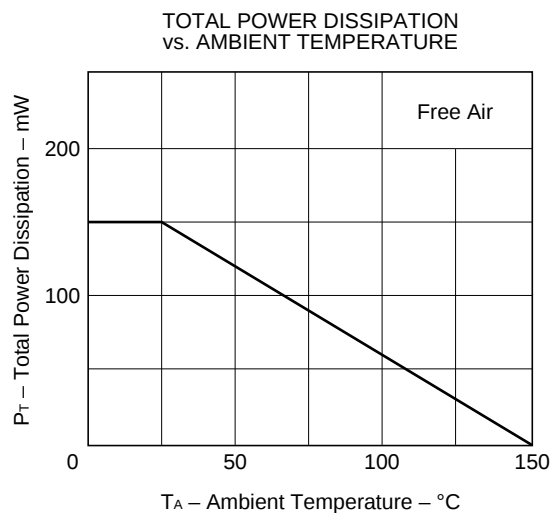
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector Cutoff Current	I_{CB0}			1.0	μA	$V_{CB} = 10\text{ V}, I_E = 0$
Emitter Cutoff Current	I_{EB0}			1.0	μA	$V_{EB} = 1\text{ V}, I_C = 0$
DC Current Gain	h_{FE}	125		250		$V_{CE} = 3\text{ V}, I_C = 7\text{ mA}^{*1}$
Gain Bandwidth Product	f_T	3.0	4.5		GHz	$V_{CE} = 3\text{ V}, I_C = 7\text{ mA}$
Feed back Capacitance	C_{re}		0.7	1.5	pF	$V_{CE} = 3\text{ V}, I_E = 0, f = 1\text{ MHz}^{*2}$
Insertion Power Gain	$ S_{21e} ^2$	7	9		dB	$V_{CE} = 3\text{ V}, I_C = 7\text{ mA}, f = 1\text{ GHz}$
Noise Figure	NF		1.2	2.5	dB	$V_{CE} = 3\text{ V}, I_C = 7\text{ mA}, f = 1\text{ GHz}$

*1 Pulse Measurement ; $PW \leq 350\text{ }\mu\text{s}$, Duty Cycle $\leq 2\%$ Pulsed.

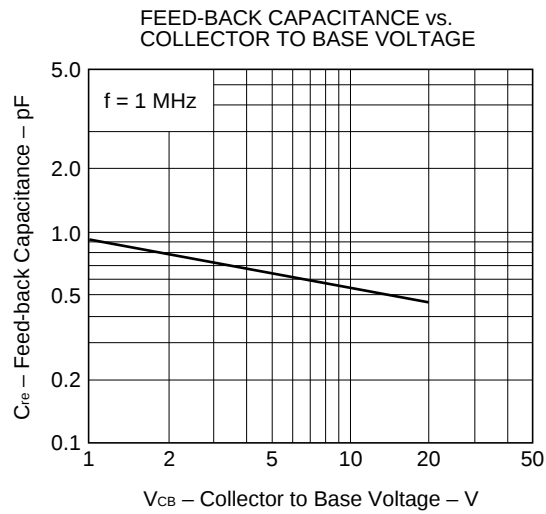
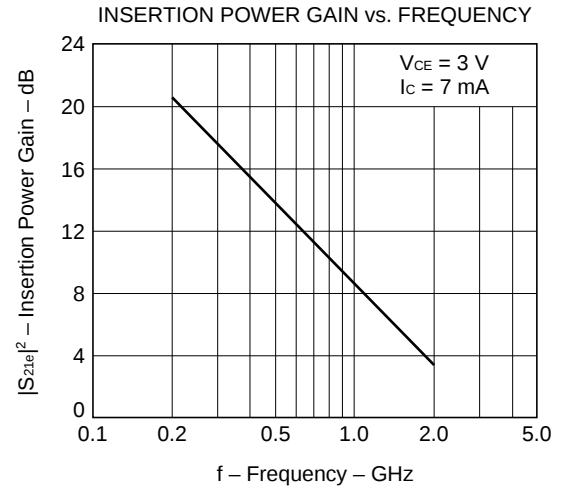
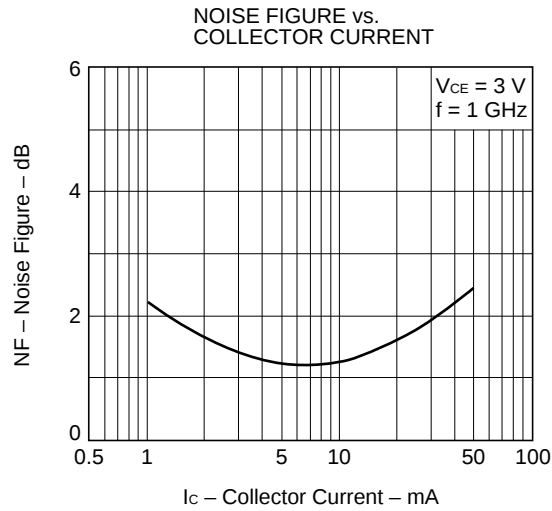
*2 Measured with 3 terminals bridge, Emitter and Case should be grounded.

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

L2SC4226QT1



L2SC4226QT1

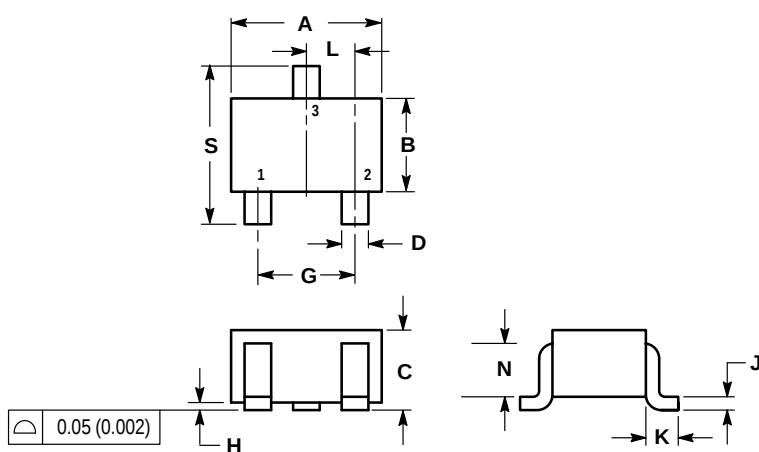


L2SC4226QT1

SC-70 / SOT-323

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

- PIN 1. BASE
2. EMITTER
3. COLLECTOR

