Ordering number : ENA1771B

SMA4306

MMIC
Oscillator, 5V, 6.4dBm@400MHz, SCH6

ON Semiconductor®
http://onsemi.com

Features

- Frequency specification with LC : Added LC sets the operating frequency
- Ultra small package : 1.6×1.6×0.56mm
- Halogen free compliance

Specifications

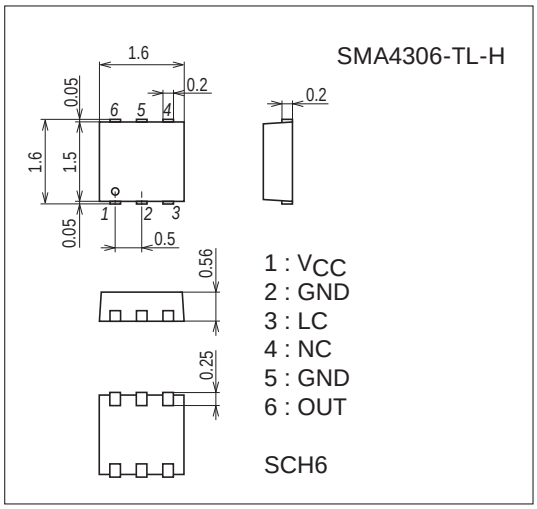
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Supply Voltage	V_{CC}		6	V
Circuit Current	I_{CC}		50	mA
Power Dissipation	P_D		280	mW
Operating Temperature	Topr		−40 to +85	°C
Storage Temperature	Tstg		−55 to +150	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

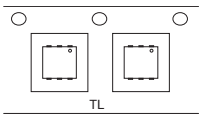
unit : mm (typ)
7028-008



Product & Package Information

- Package : SCH6
- JEITA, JEDEC : SOT-563
- Minimum Packing Quantity : 5,000 pcs./reel

Packing Type : TL



Marking



Recommended Operating Conditions at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Supply Voltage	V_{CC}		3	5	5.5	V

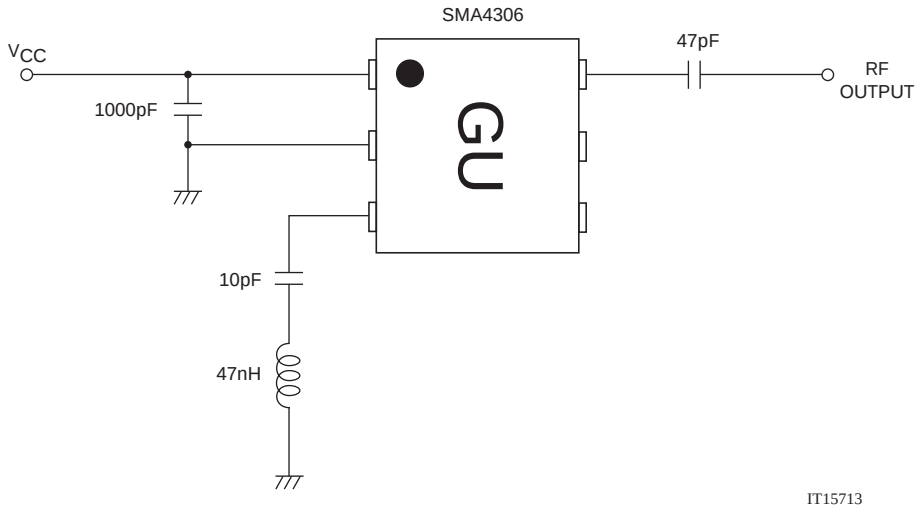
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Circuit Current	I_{CC}	V_{CC}=5V, R_L=50Ω, fosc=400MHz	29	34	39	mA
Oscillating Power	Posc		4.5	6.4	8.5	dBm
Torerance of Oscillating Frequency	fmod	V_{CC}=5V, R_L=50Ω, Specified Test Circuit (L=47nH, C=10pF)	−10		10	%

Note 1 : Oscillation frequency mainly depends on the external LC (The LC is attached additionally to the LC terminal in series).

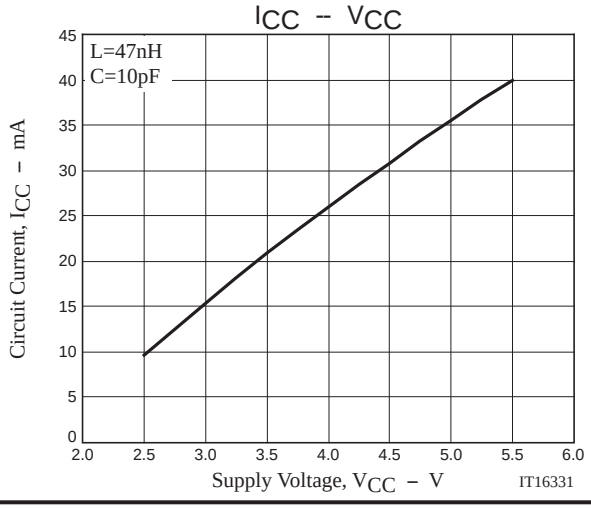
Note 2 : Recommended oscillation frequency 350MHz to 450MHz .

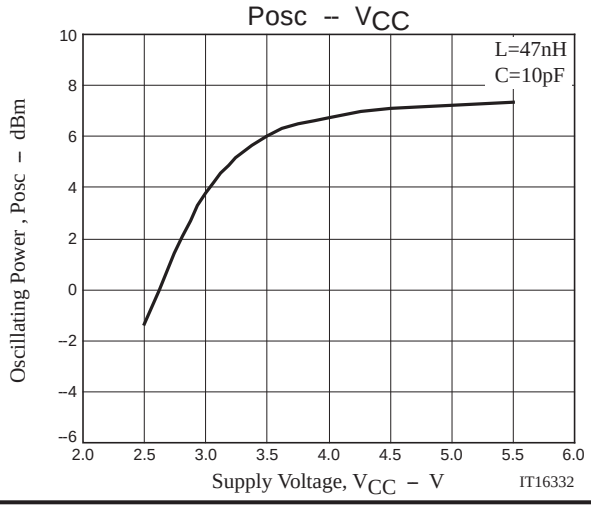
Test Circuit

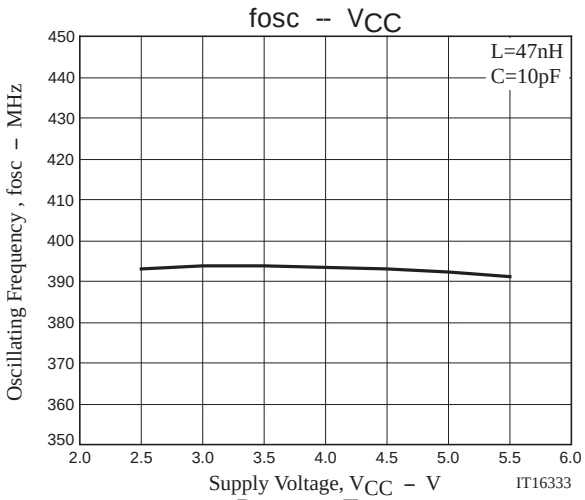


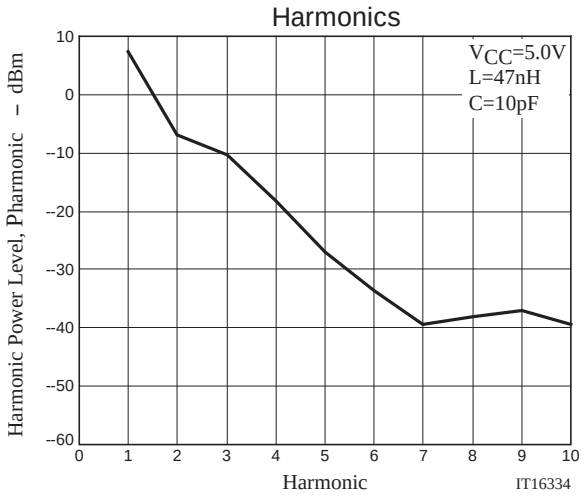
Ordering Information

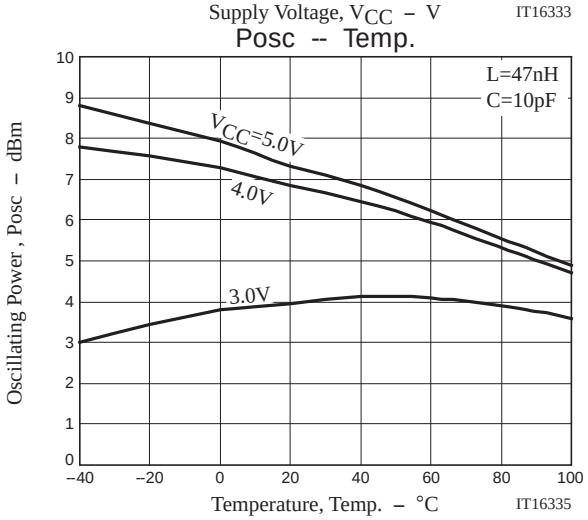
Device	Package	Shipping	memo
SMA4306-TL-H	SCH6	5,000pcs./reel	Pb Free and Halogen Free

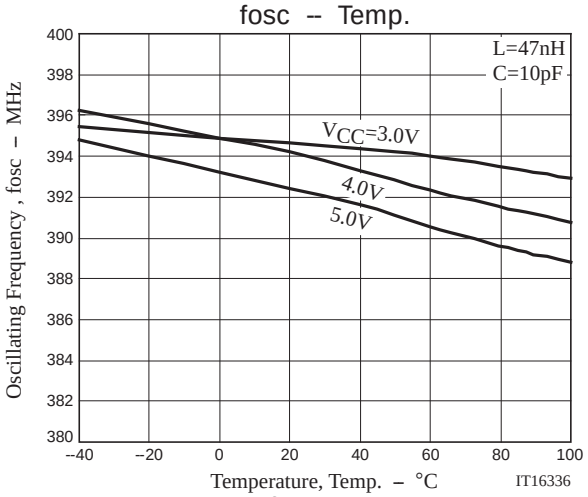


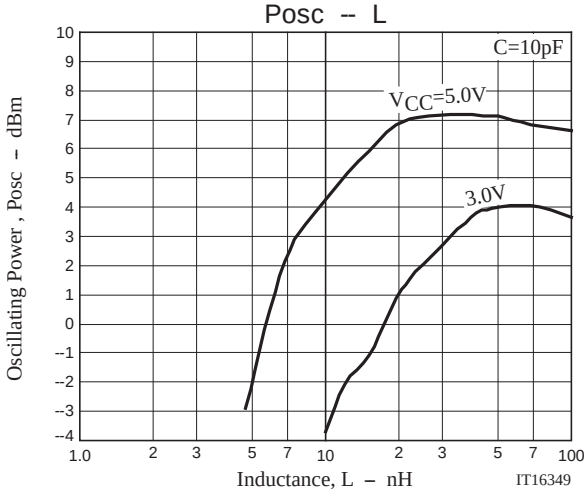


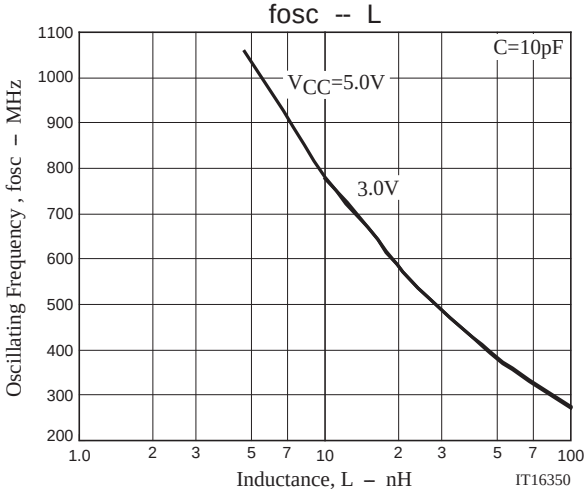

fosc -- VCC
L=47nH
C=10pF
Oscillating Frequency , fosc – MHz
Supply Voltage, VCC – V
IT16333


Harmonics
VCC=5.0V
L=47nH
C=10pF
Harmonic Power Level, Pharmonic – dBm
Harmonic
IT16334


Posc -- Temp.
L=47nH
C=10pF
VCC=5.0V
4.0V
3.0V
Oscillating Power , Posc – dBm
Temperature, Temp. – °C
IT16335


fosc -- Temp.
L=47nH
C=10pF
VCC=3.0V
4.0V
5.0V
Oscillating Frequency , fosc – MHz
Temperature, Temp. – °C
IT16336


Posc -- L
C=10pF
VCC=5.0V
3.0V
Oscillating Power , Posc – dBm
Inductance, L – nH
IT16349


fosc -- L
C=10pF
VCC=5.0V
3.0V
Oscillating Frequency , fosc – MHz
Inductance, L – nH
IT16350

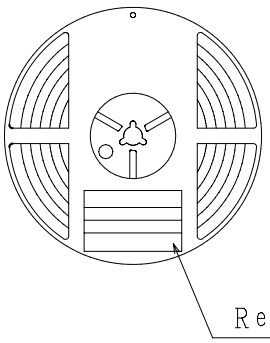
Taping Specification

SMA4306-TL-H

1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
SCH6	SCH6	5,000	25,000	150,000	5 reels contained Dimensions:mm(external) 183×72×185	6 inner boxes contained Dimensions:mm(external) 440×195×210

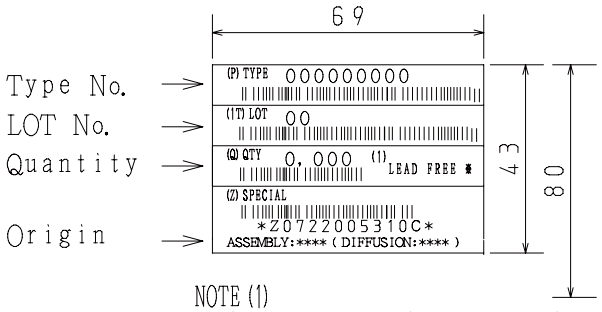
Packing method



Reel label

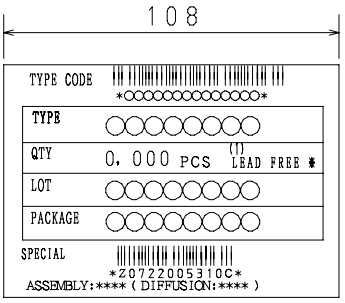
Reel label, Inner box label

(unit:mm)



Outer box label

It is a label at the time of factory shipments. The form of a label may change in physical distribution process.



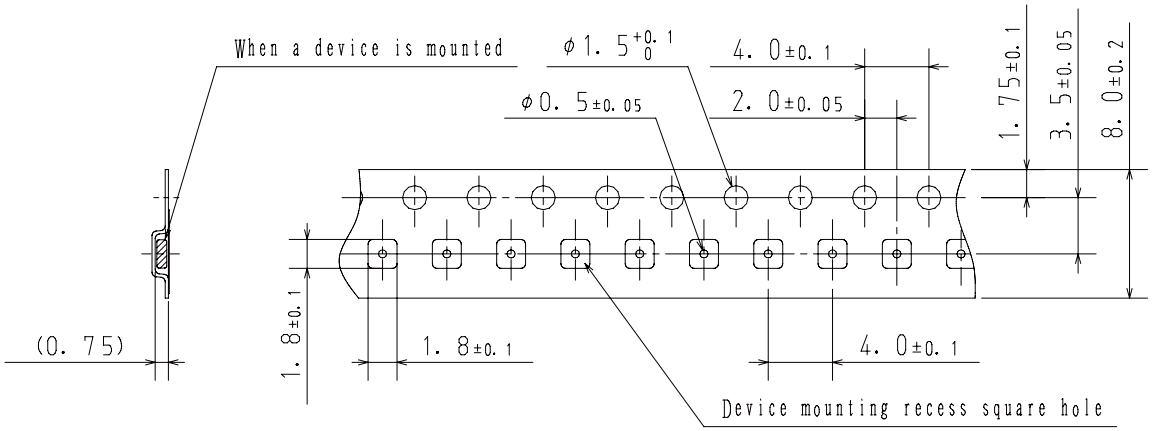
NOTE (1)

The LEAD FREE ※ description shows that the surface treatment of the terminal is lead free.

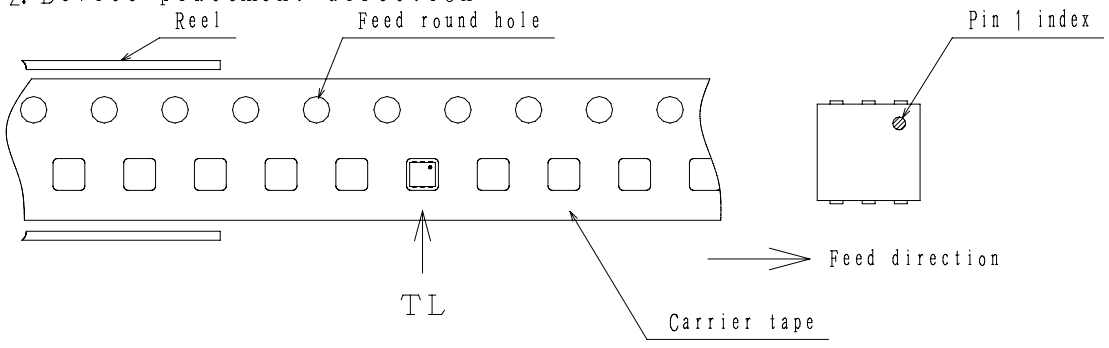
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

2-1. Carrier tape size (unit:mm)



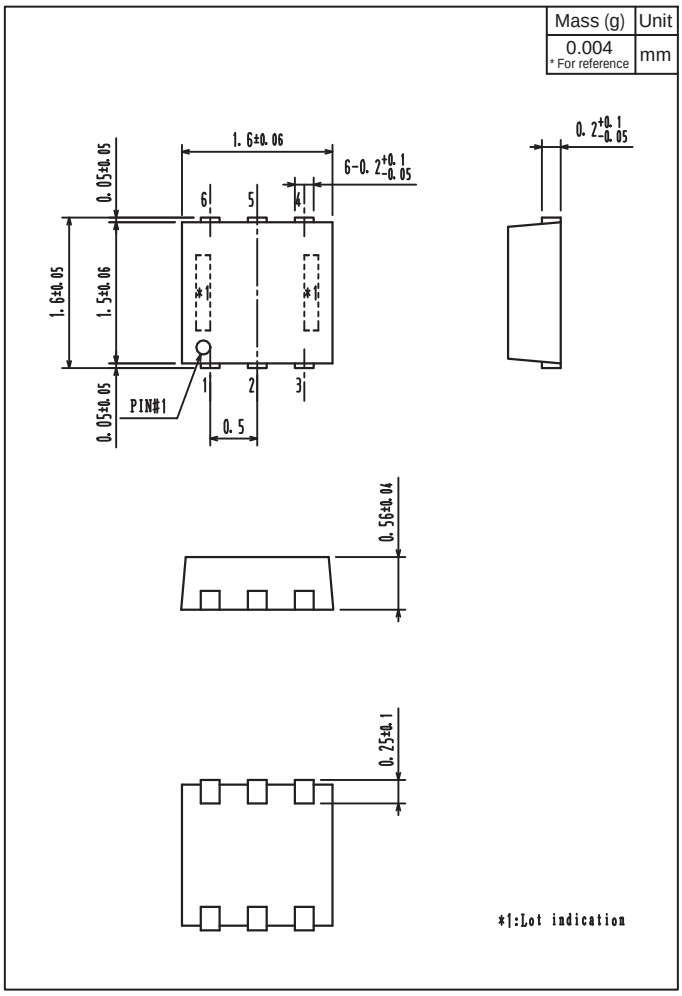
2-2. Device placement direction



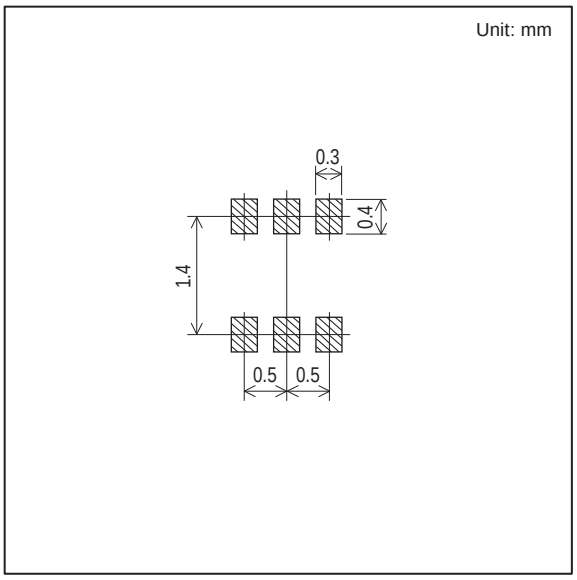
Those with pin 1 index on the feed hole side·····TL

Outline Drawing

SMA4306-TL-H



Land Pattern Example



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