



actual size

# Oscillator · JO53H · 2.5 V

High Stability Oscillator with Stop Function · 5.0 x 3.2 mm

- high stability temp. compensated oscillator CMOS output
- stability meets spec for WiMax and WLAN
- RoHS compliant, ceramic/metal package
- reflow soldering temperature: 260°C max.



## General Data

type		JO53H 2.5V
frequency range		4.0 ~ 54.0 MHz
frequency stability over all*		± 8ppm ~ ± 13ppm (table 1)
aging 1st year		± 2ppm max.
current consumption		7mA max.
supply voltage VDC		2.5V ± 10%
temperature	operating	-20°C ~ +70°C / -40°C ~ +85°C
	storage	-40°C ~ +85°C
output	rise & fall time	see table 2
	load max.	15pF
	current max.	4mA
	low level max.	0.1 x VDC
	high level min.	0.9 x VDC
output enable time max.		1ms
output disable time max.		250ns
start-up time max.		2ms
standby function		stop
standby current max.		5µA
phase jitter 12kHz~20MHz		< 0.1ps RMS typ.
symmetry at 0.5 x VDC		45% ~ 55% max.

Table 1: Frequency Stability Code

stability code	K	F	H			
	± 13 ppm	± 10 ppm	± 8 ppm			
-20 °C ~ +70 °C	○	○	○			
-40 °C ~ +85 °C	○	○	○			
○ available						

\* includes stability at 25°C, operating temp. range, supply voltage change, load change, vibration, aging 1st year

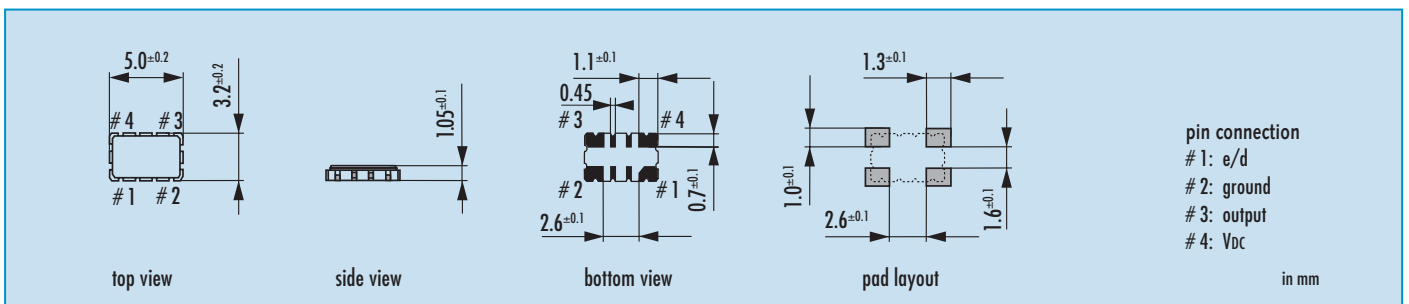
Table 2: Rise & Fall Time max.

5.0 ns: 4.0 ~ 54.0 MHz	<b>note:</b> - specific data on request - rise time: 0.1 V <sub>DC</sub> ~ 0.9 V <sub>DC</sub> - fall time: 0.9 V <sub>DC</sub> ~ 0.1 V <sub>DC</sub>
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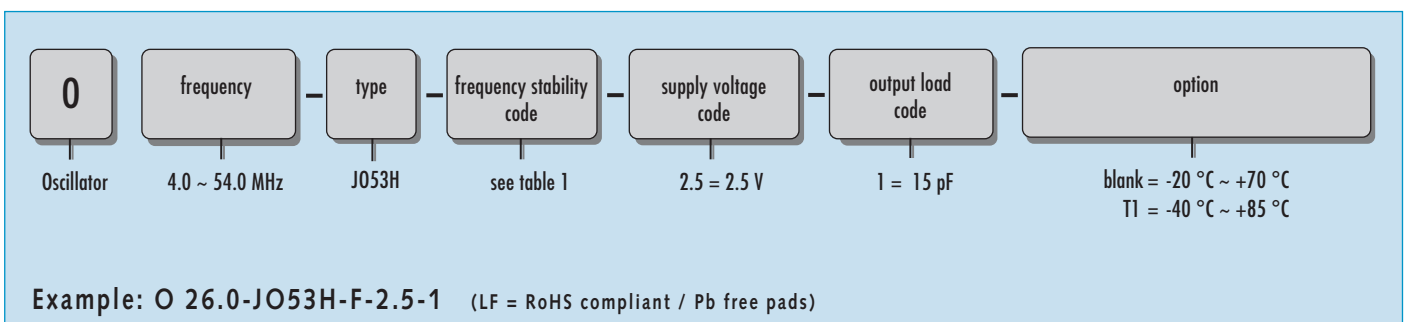
## Enable / Disable Function

pin #1 (e/d control)	pin #3 (output)
open	active
high "1" (V <sub>IH</sub> ≥ 0.7 V <sub>DC</sub> )	active
low "0" (V <sub>IL</sub> ≤ 0.3 V <sub>DC</sub> )	high impedance
<b>stop function:</b> • oscillator stops • output high impedance	

## Dimensions

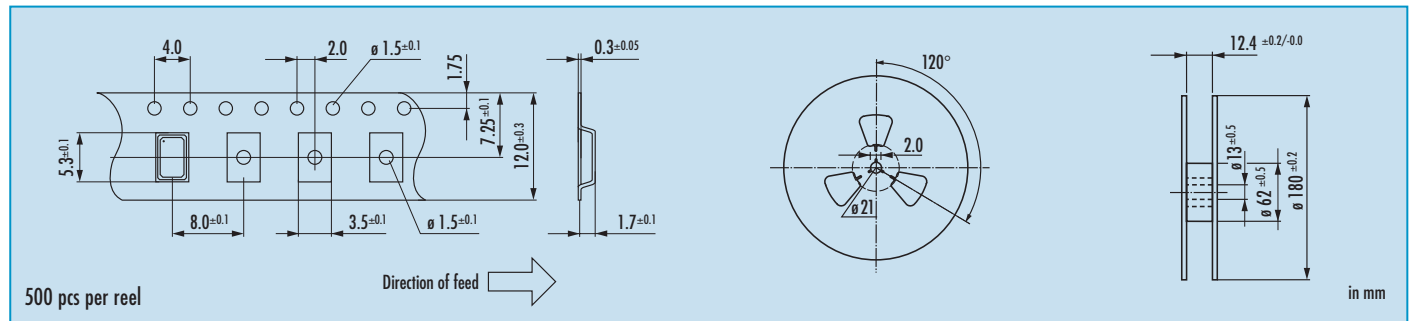


## Order Information

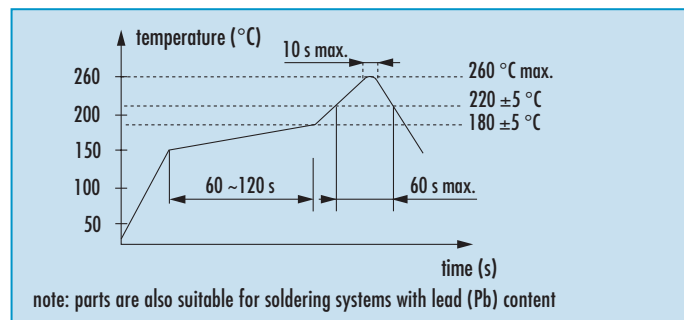


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## Taping Specification



## Reflow Soldering Profile



## Marking

frequency / company code / frequency stability code / date code

date code:

A ~ M: Jan. - Dec.

7: 2007

8: 2008

9: 2009

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

## Packing Note

- standard packing units are 500 pieces per reel
- non-multiple packing units are only supplied taped / bulk