



actual size

Oscillator · JO32H · 2.5 V

High Stability Oscillator with Stop Function · 3.2 x 2.5 mm

- low cost high stability SMD oscillator
- stability meets spec for WiMax and WLAN
- RoHS compliant, ceramic/metal package
- reflow soldering temperature: 260 °C max.



General Data

type	JO32H 2.5V	
frequency range	2.50 ~ 60.0 MHz (15 pF max.)	
frequency stability over all*	± 8 ppm ~ ± 20 ppm (table 1)	
aging 1st year	+/-2 ppm max.	
current consumption	7 mA max.	
supply voltage V _{DC}	2.5 V ± 10%	
temperature	operating	-20 °C ~ +70 °C up to -40 °C ~ +105 °C
	storage	-40 °C ~ +85 °C
output	rise & fall time	5 nsec max.
	load max	15 pF
	current max.	4 mA
	low level max.	0.1 x V _{DC}
	high level min.	0.9 x V _{DC}
output enable time max.	1 ms	
output disable time max.	250 ns	
start-up time max.	2 ms	
standby function	stop	
standby current max.	5 µA	
jitter	< 3.0 ps RMS typ.	
symmetry at 0.5 x VDC	45% ~ 55% max.	

Table 1: Frequency Stability Code

stability code	D	E	F	H
	± 20 ppm	± 15 ppm	± 10 ppm	± 8 ppm
-20 °C ~ +70 °C	○	○	○	○
-40 °C ~ +85 °C	○	○	○	
-40 °C ~ +105 °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.

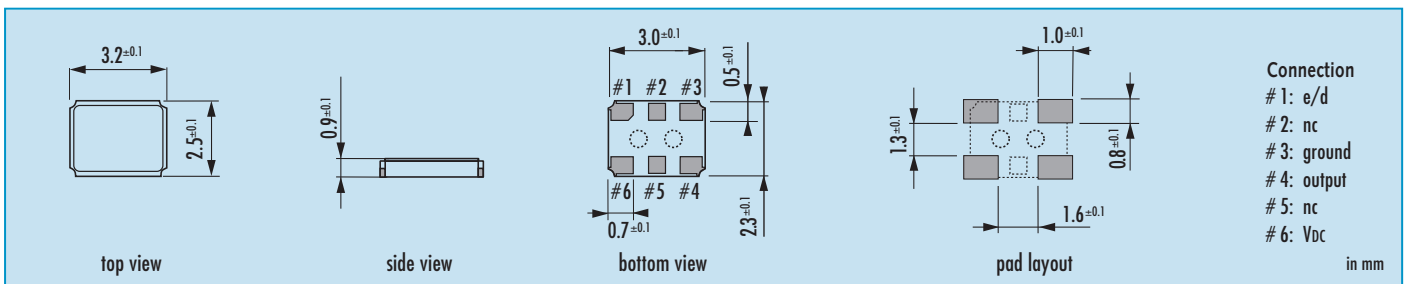
5 ns: 2.5 ~ 60.0 MHz	note: - specific data on request - rise time: 0.1 V _{DC} ~ 0.9 V _{DC} - fall time: 0.9 V _{DC} ~ 0.1 V _{DC}
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Enable / Disable Function

pin #1 (e/d control)	pin #4 (output)
open	active
high "1" (V _{IH} ≥ 0.7 V _{DC})	active
low "0" (V _{IL} ≤ 0.3 V _{DC})	high impedance

stop function: • oscillator stops / • output high impedance

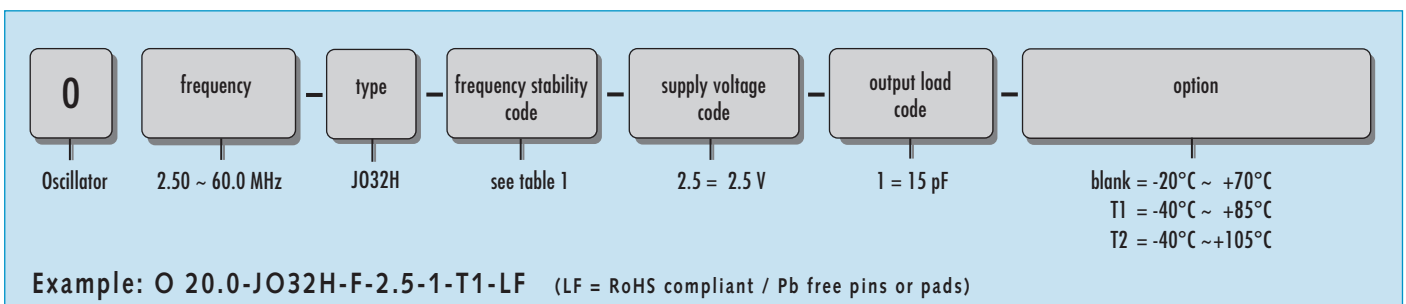
Dimensions



- Connection
- # 1: e/d
 - # 2: nc
 - # 3: ground
 - # 4: output
 - # 5: nc
 - # 6: V_{DC}

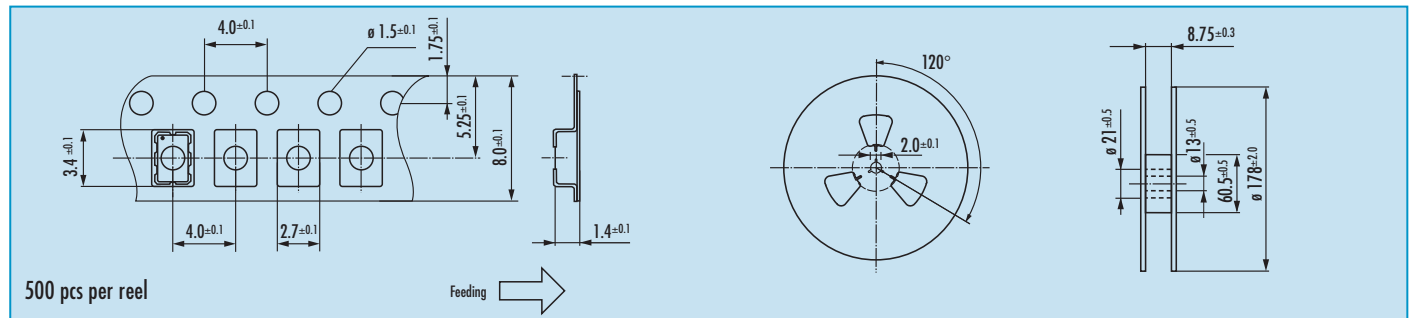
Note: please leave pins # 2, # 5 and the area underneath the package unconnected

Order Information

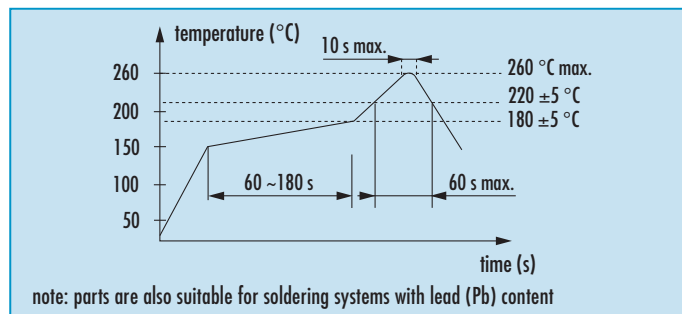


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Taping Specification



Reflow Soldering Profile



Marking

frequency

company code / frequ. stability code / date code

date code:

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

A ~ M: Jan. - Dec.

0: 2010 3: 2013

1: 2011 4: 2014

2: 2012 5: 2015

Packing Note

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