



actual size

# Oscillator · JO22 · 1.8 V

SMD Oscillator with Stop Function · 2.5 x 2.0 mm

- very low current consumption
- low phase noise type for WLAN available\*\*
- reflow soldering temperature: 260 °C max.
- ultra flat ceramic / metal package



## General Data

<b>type</b>	<b>JO22 1.8 V</b>	
frequency range	0.75 ~ 50.0 MHz	
frequency stability over all*	± 25ppm ~ ± 100ppm	
	see table 1	
current consumption	see table 2	
supply voltage V <sub>DC</sub>	1.8 V ± 5%	
temperature	operating	-20 °C ~ +70 °C / -40 °C ~ +85 °C
	storage	-55 °C ~ +100 °C
output	rise & fall time	see table 3
	load max.	15pF
	current max.	4mA
	low level max.	0.1 x V <sub>DC</sub>
	high level min.	0.9 x V <sub>DC</sub>
output enable time max.	10ms	
output disable time max.	50µs	
start-up time max.	10ms	
standby function	stop	
standby current max.	5µA	
phase jitter 12 kHz ~ 20.0 MHz	< 1.0ps RMS**	
symmetry at 0.5 x V <sub>DC</sub>	45% ~ 55% typ. (40% ~ 60% max.)	

Table 1: Frequency Stability Code

stability code	A	B	G	C		
	± 100 ppm	± 50 ppm	± 30 ppm	± 25 ppm		
-20 °C ~ +70 °C		○	○	△		
-40 °C ~ +85 °C	○	○	○			

● standard ○ available △ excludes aging

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

Table 2: Current Consumption max.

1.8 V: current at 15pF load:

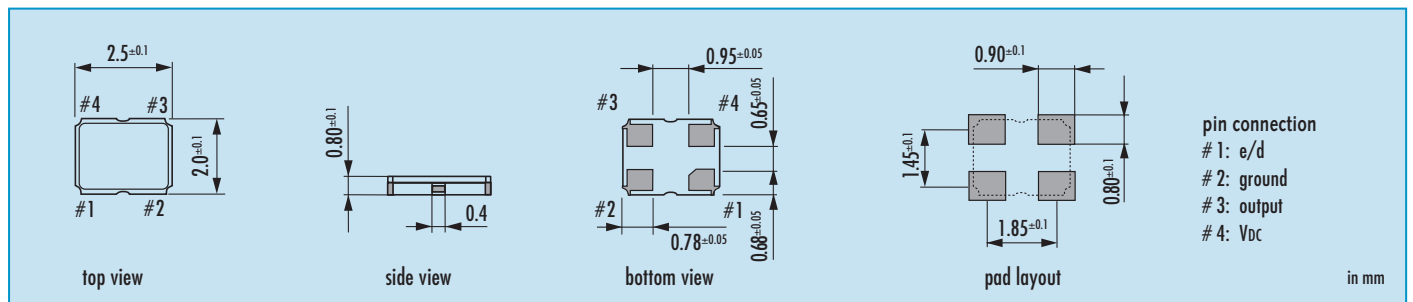
0.75 ~ 19.9 MHz	2 mA
20.00 ~ 39.9 MHz	3 mA
40.00 ~ 50.0 MHz	4 mA

Table 3: Rise & Fall Time max.

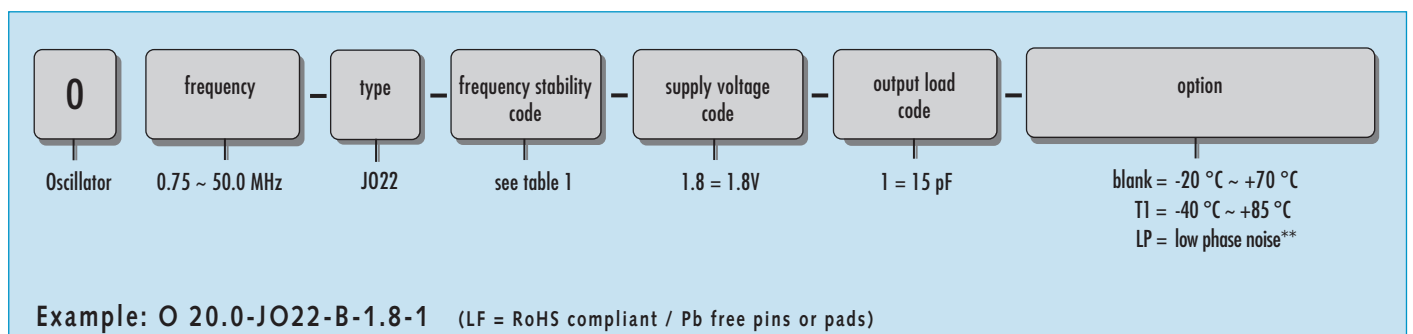
6 ns: 0.75 ~ 50.0 MHz	<p><b>note:</b></p> <ul style="list-style-type: none"> <li>- specific data on request</li> <li>- rise time: 0.1 V<sub>DC</sub> ~ 0.9 V<sub>DC</sub></li> <li>- fall time: 0.9 V<sub>DC</sub> ~ 0.1 V<sub>DC</sub></li> </ul>
-----------------------	--

\*\* detailed data and available frequencies for option - LP upon request

## Dimensions

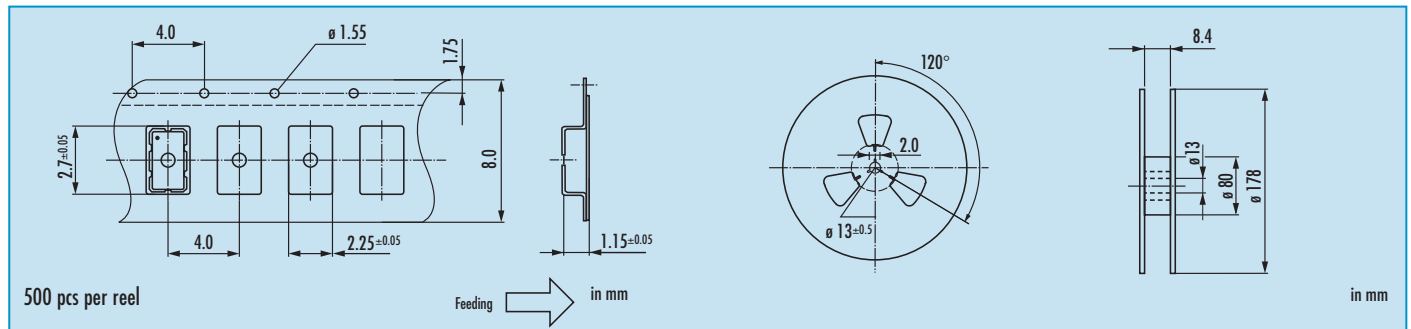


## Order Information



# Oscillator · JO22 · 1.8 V · Stop Function

## Taping Specification



## Enable / Disable Function

pin #1 (e/d control)	pin #3 (output)
open	active
high "1" ( $V_{IH} \geq 0.8 V_{DC}$ )	active
low "0" ( $V_{IL} \leq 0.2 V_{DC}$ )	high impedance

**stop function:**

- oscillator stops
- output high impedance

## Marking

frequency  
type / date code

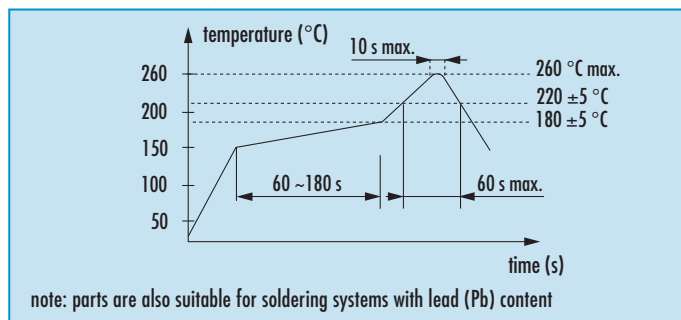
date code:  
A ~ M: Jan.- Dec.

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F

7: 2007  
8: 2008  
9: 2009

July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

## Reflow Soldering Profile



## Packing Note

- standard packing units are 1000 pieces per reel
- non-multiple packing units are only supplied taped / bulk