



actual size

# Oscillator · VX3 · 2.5 V

SMD Oscillator with Stop Function · 7.0 x 5.0 mm

- preferred type for extended temperature range
- reflow soldering temperature: 260 °C max.
- full ceramic package



## General Data

<b>type</b>	<b>VX3 2.5 V</b>
frequency range	0.50 ~ 125.0 MHz (15pF max.)
	0.50 ~ 80.0 MHz (30pF max.)
frequency stability over all*	± 20ppm ~ ± 100ppm (table 1)
current consumption	see table 2
supply voltage $V_{DC}$	2.5 V ± -10%
temperature	operating -10 °C ~ +70 °C / -40 °C ~ +85 °C
	storage -55 °C ~ +125 °C
output	rise & fall time see table 3
	load max 15pF / 30pF
	current max. 8mA
	low level max. 0.1 x $V_{DC}$
	high level min. 0.9 x $V_{DC}$
output enable time max.	10ms
output disable time max.	100ns
start-up time max.	10ms
standby function	stop
standby current max.	3µA
phase jitter 12 kHz ~ 20.0 MHz	< 1.0ps RMS
symmetry at 0.5 x $V_{DC}$	45% ~ 55% typ. (40% ~ 60% max.)

Table 1: Type

stability	± 100 ppm	± 50 ppm	± 30 ppm	± 25 ppm	± 20 ppm					
<b>type VX3</b>	<b>U</b>	<b>D</b>	<b>UH</b>	<b>DH</b>	<b>US</b>	<b>DS</b>	<b>UQ</b>	<b>DQ</b>	<b>UP</b>	<b>DP</b>
output load	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF
-10 °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.

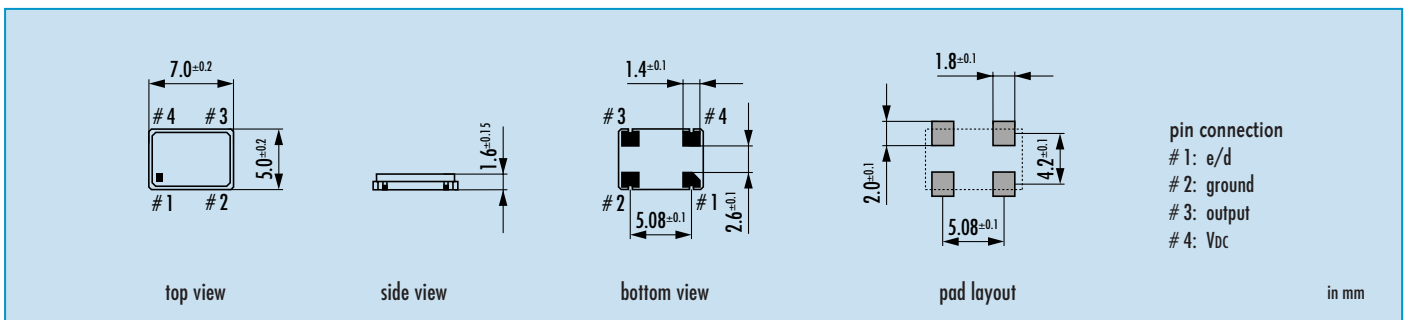
Table 2: Current Consumption max.

Current at 15pF load		Current at 30pF load	
0.5 ~ 33.9 MHz	7 mA	0.5 ~ 19.9 MHz	9 mA
34.0 ~ 49.9 MHz	11 mA	20.0 ~ 49.9 MHz	15 mA
50.0 ~ 79.9 MHz	17 mA	50.0 ~ 80.0 MHz	20 mA
80.0 ~ 125.0 MHz	30 mA		

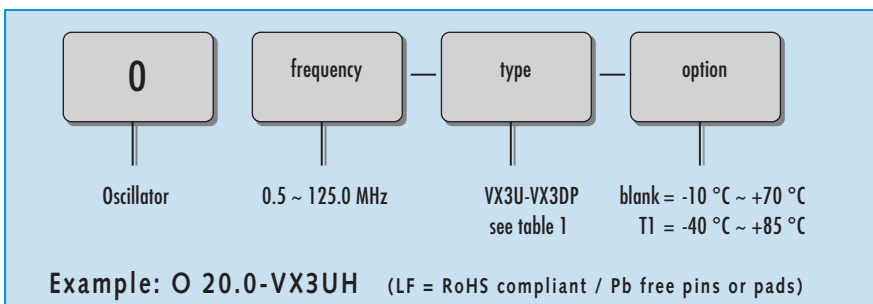
Table 3: Rise & Fall Time max.

8.0 ns: 0.5 ~ 1.79 MHz	<b>note:</b> - specific data on request - rise time: 0.1 $V_{DC}$ ~ 0.9 $V_{DC}$ - fall time: 0.9 $V_{DC}$ ~ 0.1 $V_{DC}$
6.0 ns: 1.8 ~ 79.99 MHz	
5.0 ns: 80.0 ~ 99.99 MHz	
3.0 ns: 100.0 ~ 125.00 MHz	

## Dimensions



## Order Information



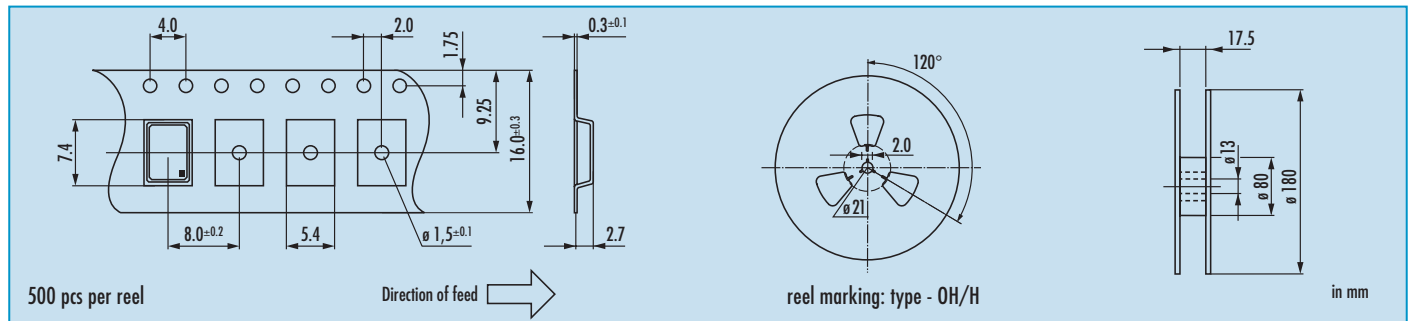
## Packing Note

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



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## Taping Specification (JIS-C0806)



## 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
<b>stop function:</b>	
<ul style="list-style-type: none"> <li>• oscillator stops</li> <li>• output high impedance</li> </ul>	

## Marking

type / frequency	
date code:	
A ~ M: Jan. - Dec.	
5: 2005	
6: 2006	
7: 2007	

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

## Reflow Soldering Profile

