



actual size

# Oscillator · VX3 · 2.8 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 2.8V</b>
frequency range	0.50 ~ 165.0 MHz (15pF max.)
	0.50 ~ 100.0 MHz (30pF max.)
frequency stability over all*	± 20ppm ~ ± 100ppm (table 1)
current consumption	see table 2
supply voltage V <sub>DC</sub>	2.8V ± 5%
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 <sub>DC</sub>
	high level min. 0.9 x V <sub>DC</sub>
output enable time max.	10ms
output disable time max.	200ns
start-up time max.	10ms
standby function	stop
standby current max.	10µA
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: Type

stability	± 100 ppm		± 50 ppm		± 30 ppm		± 25 ppm		± 20 ppm	
<b>type VX3</b>	<b>P</b>	<b>N</b>	<b>PH</b>	<b>NH</b>	<b>PS</b>	<b>NS</b>	<b>PQ</b>	<b>NQ</b>	<b>PP</b>	<b>NP</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.

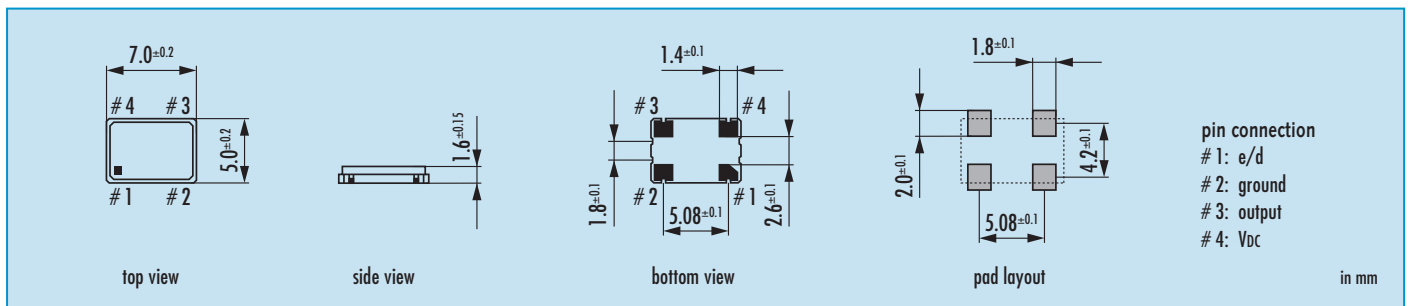
Table 2: Current Consumption max.

Current at 15pF load		Current at 30pF load	
0.5 ~ 33.9 MHz	8 mA	0.5 ~ 19.9 MHz	10 mA
34.0 ~ 49.9 MHz	12 mA	20.0 ~ 49.9 MHz	20 mA
50.0 ~ 79.9 MHz	18 mA	50.0 ~ 79.9 MHz	25 mA
80.0 ~ 99.9 MHz	30 mA	80.0 ~ 100.0 MHz	35 mA
100.0 ~ 124.9 MHz	40 mA		
125.0 ~ 165.0 MHz	60 mA		

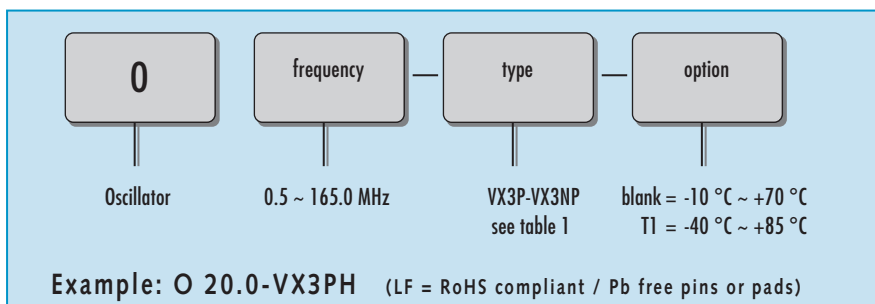
Table 3: Rise & Fall Time max.

8.0 ns: 0.5 ~ 1.79 MHz	<b>note:</b> - specific data on request - rise time: 0.1 V <sub>DC</sub> ~ 0.9 V <sub>DC</sub> - fall time: 0.9 V <sub>DC</sub> ~ 0.1 V <sub>DC</sub>
6.0 ns: 1.8 ~ 79.99 MHz	
5.0 ns: 80.0 ~ 99.99 MHz	
3.0 ns: 100.0 ~ 165.00 MHz	

## Dimensions



## Order Information

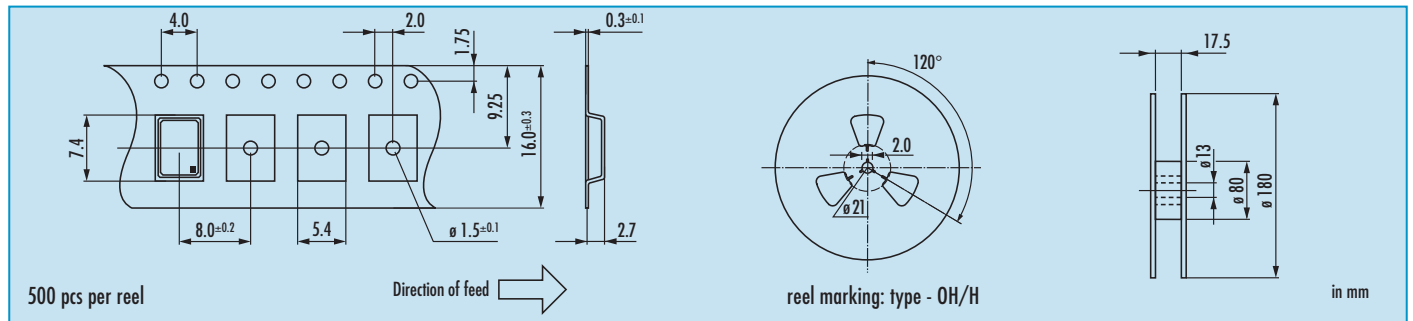


## Packing Note

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

# Oscillator · VX3 · 2.8 V · Stop Function

## 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.						
0: 2010						
1: 2011						
2: 2012						
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

