



actual size

# Oscillator · VX3 · 5.0 V

SMD Oscillator with Tristate 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 5.0 V</b>
frequency range	0.50 ~ 107.0 MHz (15pF max.)
	0.50 ~ 80.0 MHz (50pF max.)
frequency stability over all*	± 20ppm ~ ± 100ppm (table 1)
current consumption	see table 2
supply voltage $V_{DC}$	5.0 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 / 50pF
	current max. 16mA
	low level max. $0.1 \times V_{DC}$
	high level min. $0.9 \times V_{DC}$
output enable time max.	100ns
output disable time max.	100ns
start-up time max.	10ms
standby function	tristate
phase jitter 12 kHz ~ 20.0 MHz	< 1.0ps RMS
symmetry at $0.5 \times V_{DC}$	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>E</b>	<b>X</b>	<b>F</b>	<b>Y</b>	<b>FS</b>	<b>YS</b>	<b>EQ</b>	<b>XQ</b>	<b>EP</b>	<b>XP</b>
output load	15 pF	50 pF	15 pF	50 pF	15 pF	50 pF	15 pF	50 pF	15 pF	50 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.

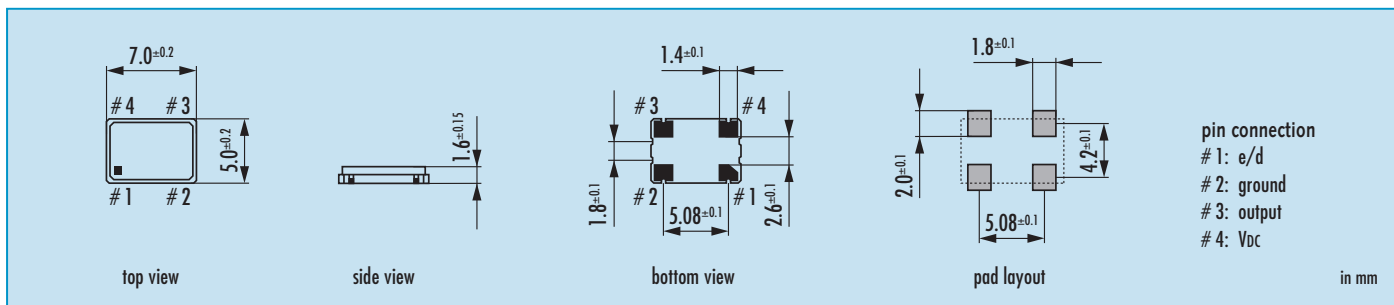
Table 2: Current Consumption max.

Current at 15pF load		Current at 50pF load	
0.5 ~ 29.9 MHz	10 mA	0.5 ~ 19.9 MHz	20 mA
30.0 ~ 34.9 MHz	15 mA	20.0 ~ 49.9 MHz	35 mA
35.0 ~ 65.9 MHz	30 mA	50.0 ~ 80.0 MHz	60 mA
66.0 ~ 79.9 MHz	50 mA		
80.0 ~ 107.0 MHz	60 mA		

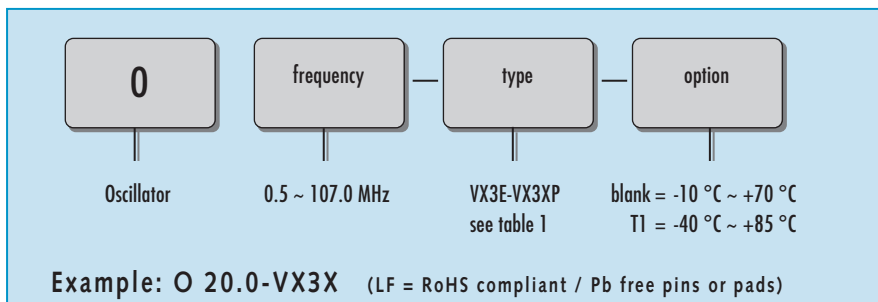
Table 3: Rise & Fall Time max.

8.0 ns: 0.5 ~ 1.79 MHz	<b>note:</b> - specific data on request - rise time: $0.1 V_{DC} \sim 0.9 V_{DC}$ - fall time: $0.9 V_{DC} \sim 0.1 V_{DC}$
6.0 ns: 1.8 ~ 34.99 MHz	
5.0 ns: 35.0 ~ 107.00 MHz	

## Dimensions



## Order Information

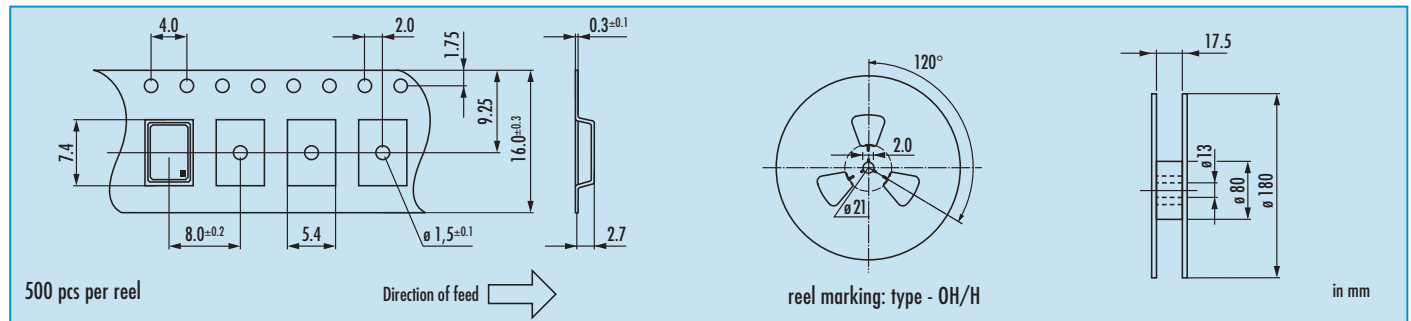


## Preferred Type

<b>VX3E-T1:</b>	± 100 ppm / 15 pF / -40 °C ~ +85 °C
<b>VX3E:</b>	± 100 ppm / 15 pF

# Oscillator · VX3 · 5.0 V · Tristate Function

## Taping Specification (JIS-C0806)



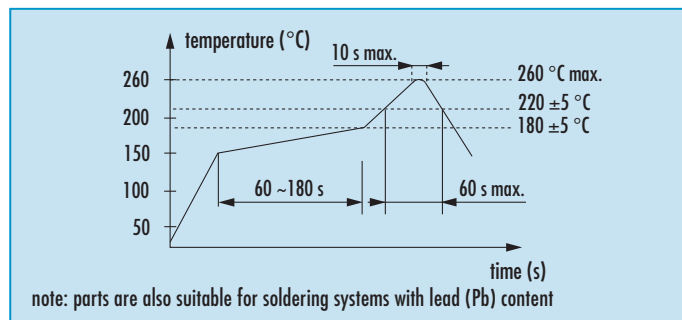
## Enable / Disable Function

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>disabled conditions:</b>	
<ul style="list-style-type: none"> <li>• oscillator active</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



## Packing Note

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