



actual size

# Programmed Oscillator · VX7

## Programmed SMD Oscillator · 7.0 x 5.0 mm

- fast delivery service
- tristate or stop function available
- reflow soldering temperature: 260 °C max.
- full ceramic package



### General Data

type	VX7 3.3 V / 5.0 V	
frequency range	1.0 ~ 200.0 MHz (15pF max.)	
	1.0 ~ 50.0 MHz (50pF max.)	
frequency stability over all*	± 25 ppm ~ ± 100 ppm (table 1)	
current consumption	see table 2	
supply voltage V <sub>DC</sub>	3.3 V ± 10% / 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.	8mA (3.3 V) / 16 mA (5.0 V)
	low level max.	0.1 x V <sub>DC</sub>
	high level min.	0.9 x V <sub>DC</sub>
standby function	stop / tristate	
output enable time max.	10ms / 100 ns	
output disable time max.	100ns	
start-up time max.	10ms	
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
-10 °C ~ +70 °C	STD.	○	○	○	○
-40 °C ~ +85 °C	T1	○	○	○	○
○ available					

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

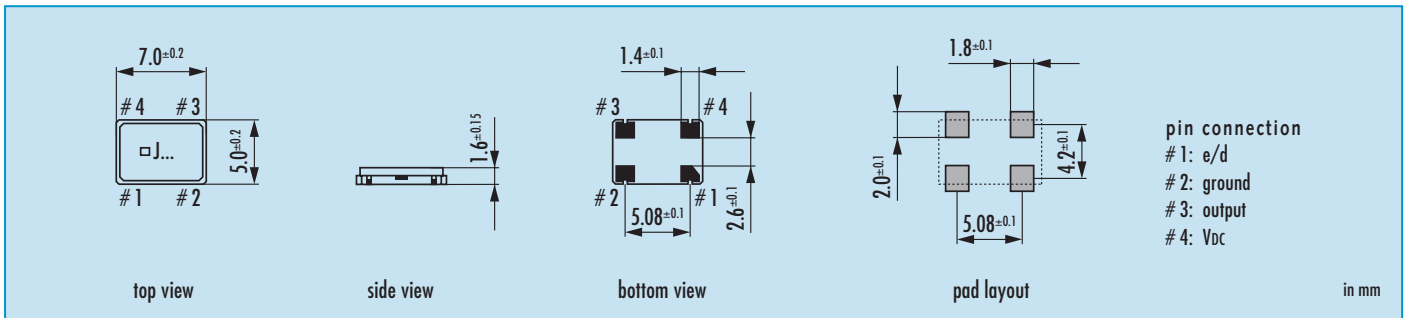
Table 2: Current Consumption max.

<b>3.3 V version:</b> 20 mA with 15 pF load 30 mA with 50 pF load	<b>5.0 V version:</b> 30 mA with 15 pF load 50 mA with 50 pF load
---	---

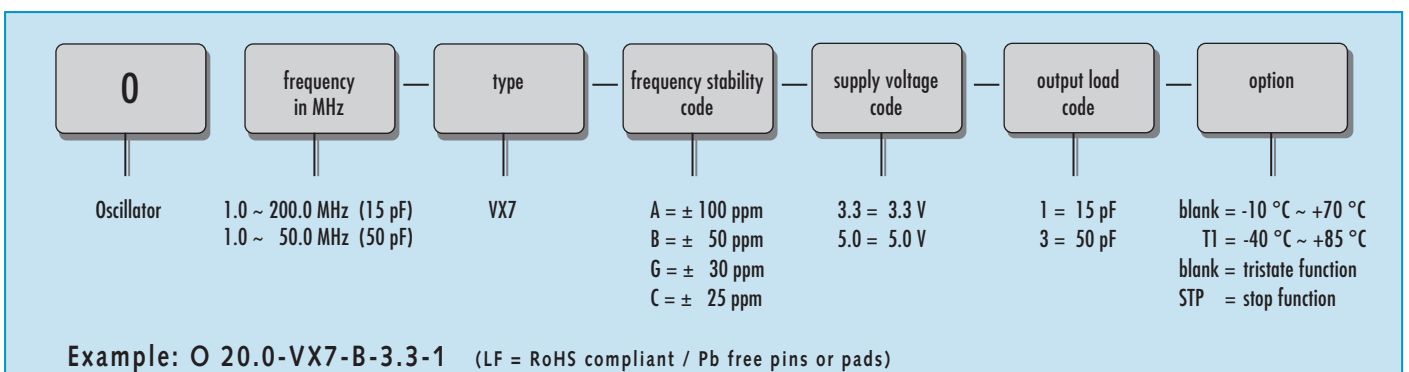
Table 3: Rise & Fall Time max.

6.0 ns: 1.0 ~ 49.9 MHz 5.0 ns: 50.0 ~ 99.9 MHz 4.0 ns: 100.0 ~ 200.0 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>
--	--

### Dimensions



### Order Information



# Programmed Oscillator · VX7

## 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> • oscillator stops • output high impedance	<b>tristate function:</b> • oscillator active • output high impedance

## Marking

J / date code

date code:

A ~ M: Jan.- Dec.

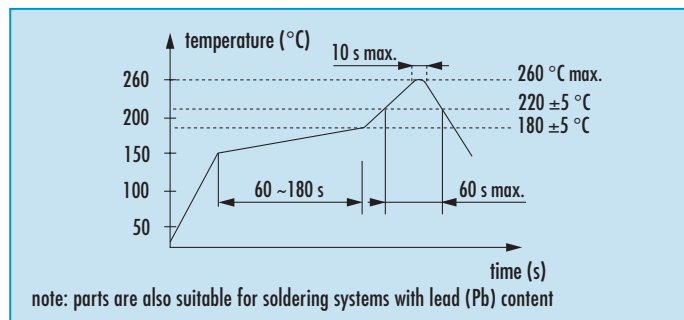
9: 2009

0: 2010

1: 2011

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

## Jitter Reference Data

### 3.3 V version, 15 pF

frequency in MHz	1 sigma RMS in ps	peak-peak in ps
8.0000	50	200
16.0000	41	160
32.0000	42	170
50.0000	13	70
106.250	27	125
125.000	21	100
155.520	27	130
200.000	40	150