



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_{DC}	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_{DC} high level min.: 0.9 x V_{DC}
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_{DC}	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.

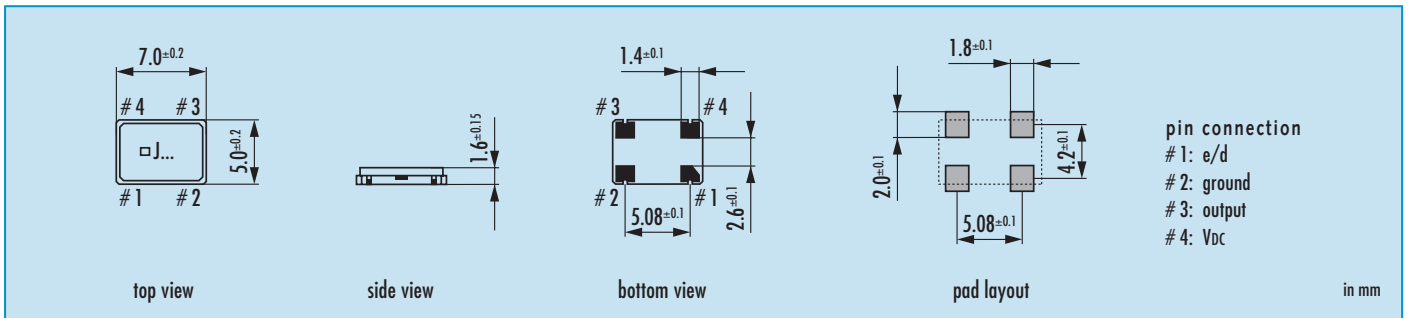
Table 2: Current Consumption max.

3.3 V version: 20 mA with 15 pF load 30 mA with 50 pF load	5.0 V version: 30 mA with 15 pF load 50 mA with 50 pF load
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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	note: - specific data on request - rise time: 0.1 V_{DC} ~ 0.9 V_{DC} - fall time: 0.9 V_{DC} ~ 0.1 V_{DC}
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Dimensions



Order Information

0	frequency in MHz	type	frequency stability code	supply voltage code	output load code	option
Oscillator	1.0 ~ 200.0 MHz (15 pF) 1.0 ~ 50.0 MHz (50 pF)	VX7	A = ± 100 ppm B = ± 50 ppm G = ± 30 ppm C = ± 25 ppm	3.3 = 3.3 V 5.0 = 5.0 V	1 = 15 pF 3 = 50 pF	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C blank = tristate function STP = stop function

Example: O 20.0-VX7-B-3.3-1 (LF = RoHS compliant / Pb free pins or pads)

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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	tristate function: - oscillator active - output high impedance

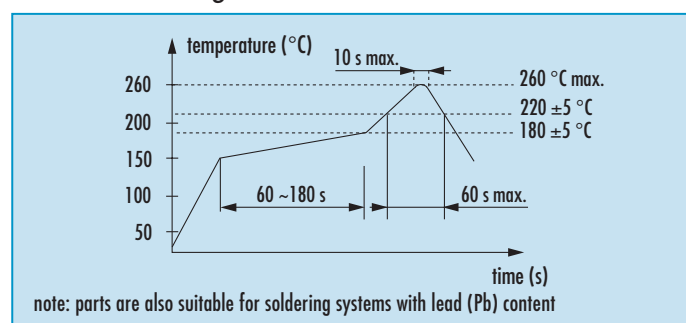
Marking

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