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

RoHS 2002/95/EC
RoHS compliant

Pb free: pins / pads

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*		± 25ppm ~ ± 100ppm (table 2)
current consumption		see table 1
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.)

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

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

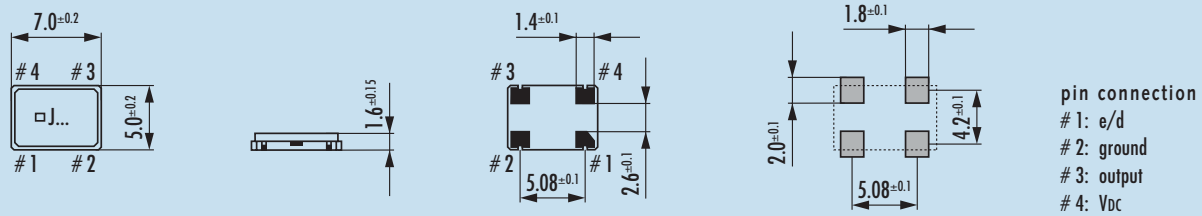
Rise & fall time max.

6 ns: 1.0 ~ 49.9 MHz
5 ns: 50.0 ~ 99.9 MHz
4 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}

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

Dimensions



top view | side view | bottom view | pad layout | in mm

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)

Jauch Quartz GmbH • e-mail: info@jauch.de
full data can be found under: www.jauch.de / www.jauch.fr / www.jauchusa.com

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
stop function: • oscillator stops • output high impedance	**tristate function:** • oscillator active • output high impedance

Marking

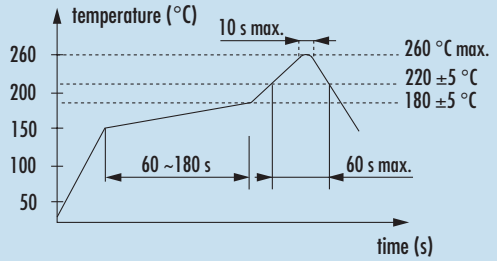
J / date code

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



note: parts are also suitable for soldering systems with lead (Pb) content

Packing Note

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