

actual size

Oscillator · VX3 · 3.3 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

RoHS 2002/95/EC compliant

Pb free: pins / pads

General Data

type		VX3 3.3 V
frequency range		0.50 ~ 70.0 MHz (15pF max.)
		0.50 ~ 70.0 MHz (30pF max.)
frequency stability over all*		± 20ppm ~ ± 100ppm (table 1)
current consumption		see table 2
supply voltage V_{DC}		3.3 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 / 30pF
	current max.	8mA
	low level max.	0.1 x V_{DC}
	high level min.	0.9 x 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 x V_{DC}		45% ~ 55% typ. (40% ~ 60% max.)

Table 1: Type

stability	± 100 ppm		± 50 ppm		± 30 ppm		± 25 ppm		± 20 ppm	
type VX3	**J**	**M**	**K**	**MH**	**JS**	**MS**	**JQ**	**MQ**	**JP**	**MP**
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	○	○	○	●	○	○	○	○	Δ	Δ
-40 °C ~ +85 °C	○	○	○	●	○	○	○	○		

● standard ○ available Δ excludes aging

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

Table 2: Current Consumption max.

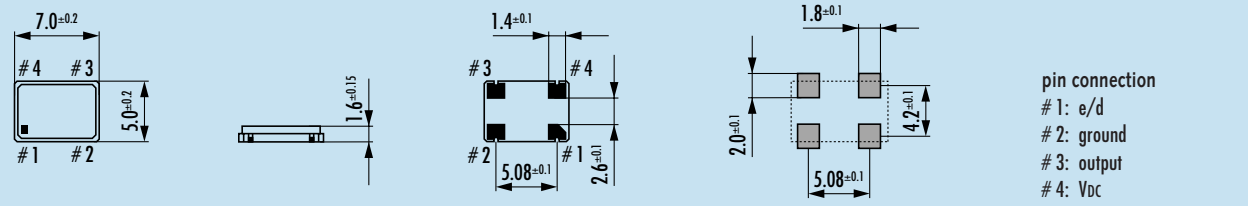
Current at 15pF load		Current at 30pF load	
0.5 ~ 33.9 MHz	8 mA	0.5 ~ 33.9 MHz	10 mA
34.0 ~ 49.9 MHz	12 mA	34.0 ~ 49.9 MHz	20 mA
50.0 ~ 70.0 MHz	25 mA	50.0 ~ 70.0 MHz	25 mA

Table 3: Rise & Fall Time max.

8.0 ns: 0.5 ~ 1.79 MHz
6.0 ns: 1.8 ~ 34.99 MHz
5.0 ns: 35.0 ~ 70.00 MHz

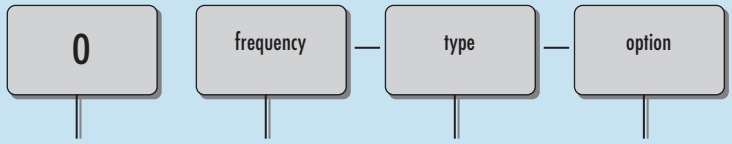
note:
- specific data on request
- rise time: 0.1 V_{DC} ~ 0.9 V_{DC}
- fall time: 0.9 V_{DC} ~ 0.1 V_{DC}

Dimensions



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

Order Information



Oscillator | 0.5 ~ 70.0 MHz | VX3J-VX3MP see table 1 | blank = -10 °C ~ +70 °C; T1 = -40 °C ~ +85 °C

Example: O 20.0-VX3MH (LF = RoHS compliant / Pb free pads)

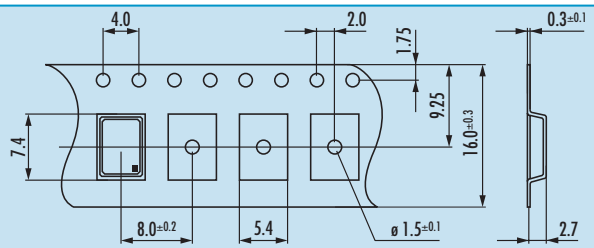
Preferred Type

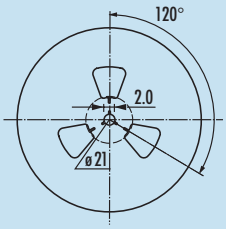
VX3MH-T1: ± 50 ppm / 30 pF/ -40 °C ~ +85 °C
VX3MH: ± 50 ppm / 30 pF

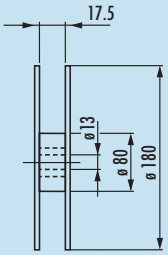
Jauch Quartz GmbH • e-mail: info@jauch.de
full data can be found under: www.jauch.de / www.jauch.fr / www.jauchusa.com
All specifications are subject to change without notice

Oscillator · VX3 · 3.3 V · Tristate Function

Taping Specification (JIS-C0806)







500 pcs per reel

Direction of feed

reel marking: type - OH/H

in mm

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

disabled conditions:
- oscillator active
- output high impedance

Marking

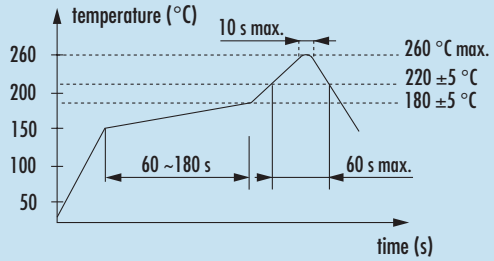
type / frequency

date code:
A ~ M: Jan.- Dec.
7: 2007
8: 2008
9: 2009

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