



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



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. $0.1 \times V_{DC}$
	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	
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	○	○	○	●	○	○	○	○	△	△
-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.

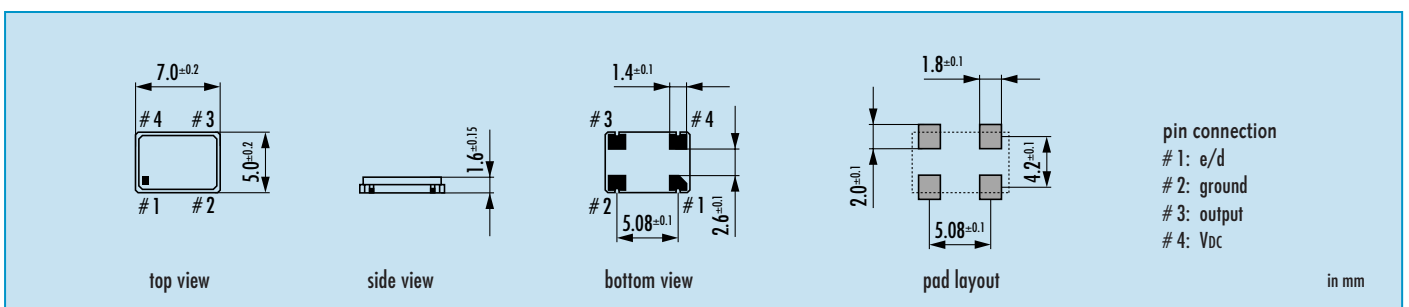
Table 2: Current Consumption max.

Current at 15pF load		Current at 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

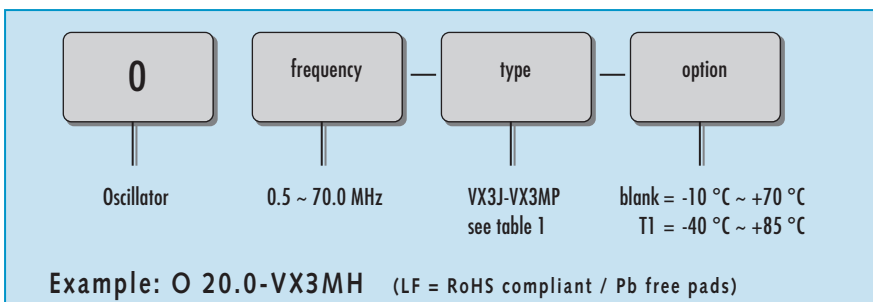
Table 3: Rise & Fall Time max.

8.0 ns: 0.5 ~ 1.79 MHz	note: - 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 ~ 70.00 MHz	

Dimensions



Order Information

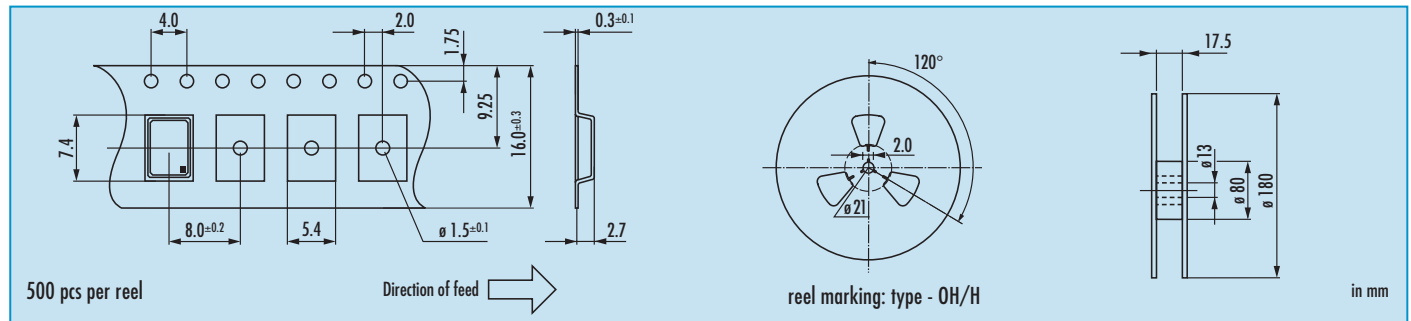


Preferred Type

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

Oscillator · VX3 · 3.3 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
disabled conditions:	
<ul style="list-style-type: none"> • oscillator active • output high impedance 	

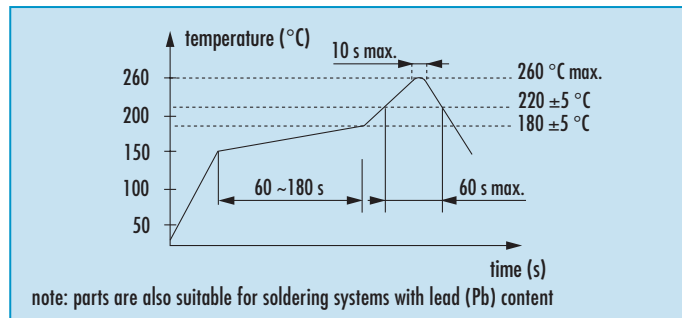
Marking

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



Packing Note

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