



actual size

Oscillator · VX3 · 1.8 V

SMD Oscillator with Stop 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 1.8 V
frequency range	0.5 ~ 40.0 MHz
higher frequencies on request	40.1 ~ 125.0 MHz
frequency stability over all*	± 20ppm ~ ± 100ppm see table 1
current consumption	see table 2
supply voltage V_{DC}	1.8V ± 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: 30pF current max.: 2.8mA (<40MHz) / 8.0mA (>40MHz) low level max.: 0.1 x V_{DC} high level min.: 0.9 x V_{DC}
output enable time max.	10ms
output disable time max.	200ns
start-up time max.	10ms
standby function	stop
standby current max.	10µA (<40MHz) / 100µA (>40MHz)
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	V	VH	VS	VQ	VP
output load	30 pF	30 pF	30 pF	30 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.

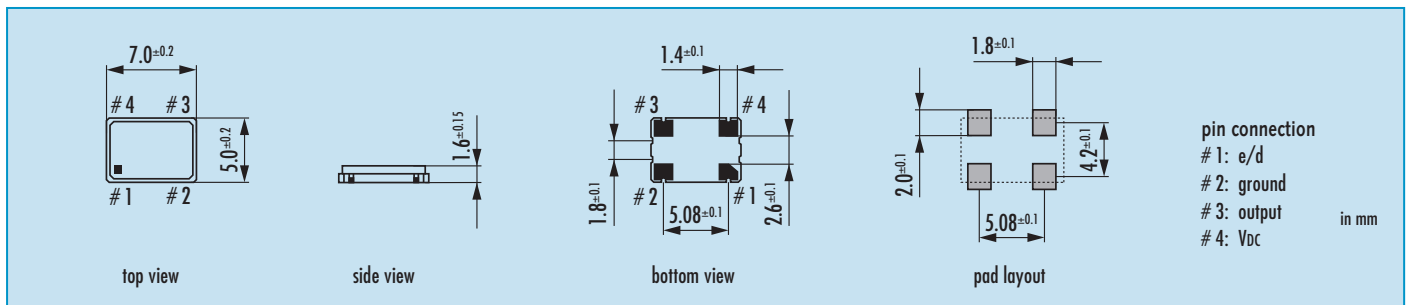
Table 2: Current Consumption max.

Current at 30pF load	
0.50 ~ 19.9 MHz	7 mA
20.0 ~ 39.9 MHz	10 mA
40.0 ~ 69.9 MHz	18 mA
70.0 ~ 94.9 MHz	25 mA
95.0 ~ 125.0 MHz	30 mA

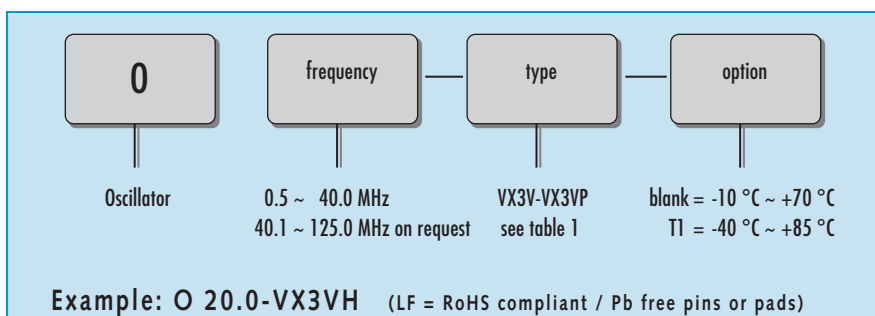
Table 3: Rise & Fall Time max.

8.0 ns:	0.5 ~ 1.79 MHz	note: - specific data on request - rise time: 0.1 V_{DC} ~ 0.9 V_{DC} - fall time: 0.9 V_{DC} ~ 0.1 V_{DC}
6.0 ns:	1.8 ~ 69.90 MHz	
5.0 ns:	70.00 ~ 99.90 MHz	
4.0 ns:	100.00 ~ 125.00 MHz	

Dimensions



Order Information



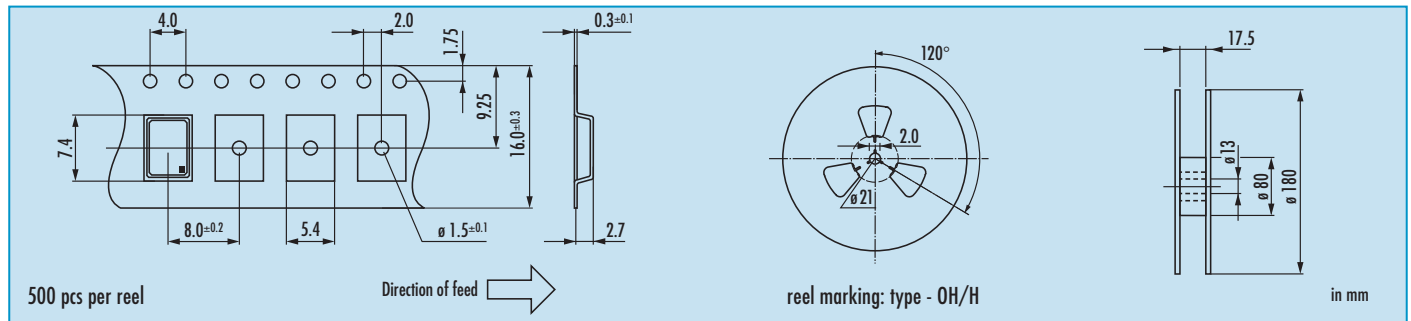
Packing Note

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



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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

stop function:

- oscillator stops
- output high impedance

Marking

type / frequency	
date code:	
A ~ M: Jan. - Dec.	
0: 2010	
1: 2011	
2: 2012	

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

