



actual size

Oscillator VX3 · 3.3 V

- SMD Oscillator with Tristate Function, 7.0 x 5.0 mm
- preferred type for extended temperature range
- full ceramic package



RoHS compliant



Pb free



REACH compliant



Conflict mineral free

GENERAL DATA		VX3 3.3 V
TYPE	VX3 3.3 V	
frequency range	0.50 ~ 70.0 MHz (15 pF max.) 0.50 ~ 70.0 MHz (30 pF max.)	
frequency stability over all*	± 20 ppm ~ ± 100 ppm (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.	15 pF / 30 pF
	current max.	8 mA
	low level max.	0.1 x V_{DC}
	high level min.	0.9 x V_{DC}
output enable time max.	100 ns	
output disable time max.	100 ns	
start-up time max.	10 ms	
standby function	tristate	
phase jitter 12 kHz ~ 20.0 MHz	< 1.0 ps 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	15pF	30pF	15pF	30pF	15pF	30pF	15pF	30pF	15pF	30pF
-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 15 pF load		Current at 30 pF load	
0.50 ~ 33.9 MHz	8 mA	0.50 ~ 33.9 MHz	8 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} ~ 0.9 V_{DC} - fall time: 0.9 V_{DC} ~ 0.1 V_{DC}
6.0 ns:	1.8 ~ 34.99 MHz	
5.0 ns:	35.0 ~ 70.00 MHz	

DIMENSIONS

top view side view bottom view pad layout pin connection in mm

1: e/d
2: ground
3: output
4: V_{DC}

ORDER INFORMATION

0	frequency	type	option
Oscillator	0.5 ~ 70.0 MHz	VX3J-VX3MP see table 1	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: 0 20.0-VX3MH (Suffix LF = RoHS compliant / Pb free)

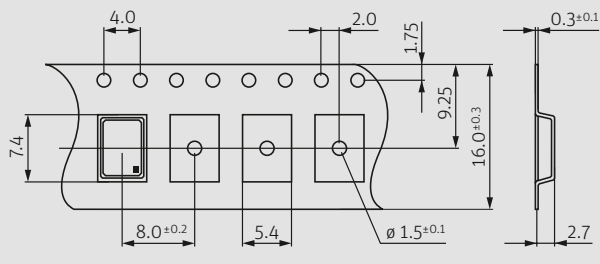
PREFERRED TYPE

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

VX3MH:
± 50 ppm / 30 pF

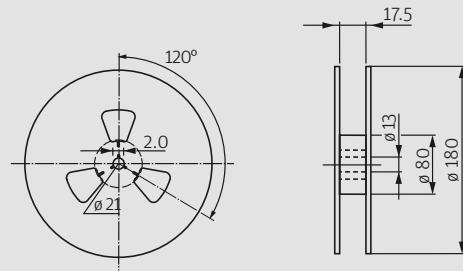
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TAPING SPECIFICATION (JIS-C0806)



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

stop function:

- oscillator stops
- output high impedance

MARKING

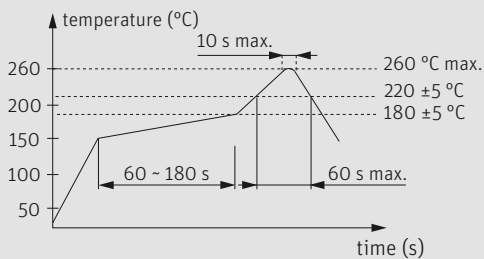
type / frequency

date code: A ~ M: Jan. - Dec.

7: 2017 8: 2018 9: 2019 0: 2020 1: 2021 2: 2022

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

PACKAGING NOTE

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