actual size

Oscillator VX3 · 5.0 V

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

RoHS 2011/65/EC compliant

Pb free

REACH compliant

Conflict mineral free

GENERAL DATA

TYPE		VX3 5.0 V
frequency range		0.5 ~ 107.0 MHz (15 pF max.)
		0.5 ~ 80.0 MHz (50 pF max.)
frequency stability over all*		± 20 ppm ~ ± 100 ppm
		see table 1
current consumption		see table 2
supply voltage V_{DC}		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.	15 pF / 50 pF
	current max.	16 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	**E**	**X**	**F**	**Y**	**FS**	**YS**	**EQ**	**XQ**	**EP**	**XP**
output load	15pF	50pF	15pF	50pF	15pF	50pF	15pF	50pF	15pF	50pF
-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.

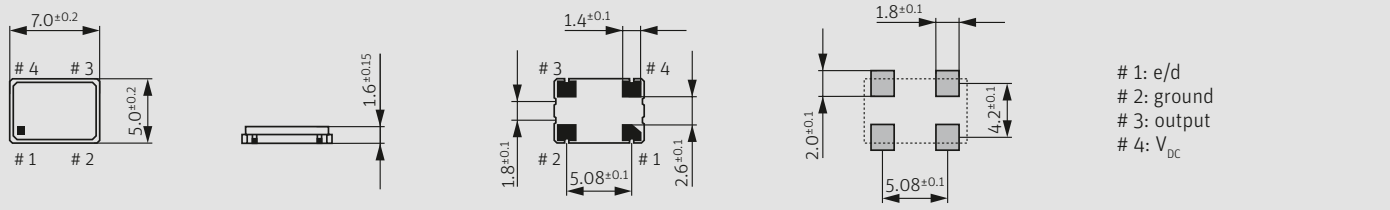
TABLE 2: CURRENT CONSUMPTION MAX.

Current at 15 pF load		Current at 50 pF load	
0.50 ~ 29.9 MHz	10 mA	0.50 ~ 19.9 MHz	20 mA
30.0 ~ 34.9 MHz	15 mA	20.0 ~ 49.9 MHz	35 mA
35.0 ~ 65.9 MHz	30 mA	50.0 ~ 80.0 MHz	60 mA
66.0 ~ 79.9 MHz	50 mA		
80.0 ~ 107.0 MHz	60 mA		

TABLE 3: RISE & FALL TIME MAX.

8.0 ns: 0.5 ~ 1.79 MHz	**note:**
6.0 ns: 1.8 ~ 34.99 MHz	- specific data on request
5.0 ns: 35.0 ~ 107.00 MHz	- 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 | pin connection | in mm

ORDER INFORMATION

0	frequency	–	type	–	option
Oscillator	0.5 ~107.0 MHz		VX3E-VX3XP see table 1		blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C

Example: O 20.0-VX3X (Suffix LF = RoHS compliant / Pb free)

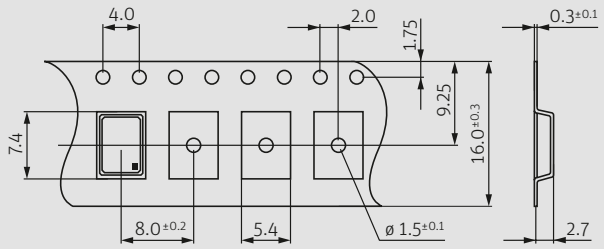
PREFERRED TYPE

VX3E-T1:
100 ppm / 15 pF / -40 °C ~ +85 °C

VX3E:
± 100 ppm / 15 pF

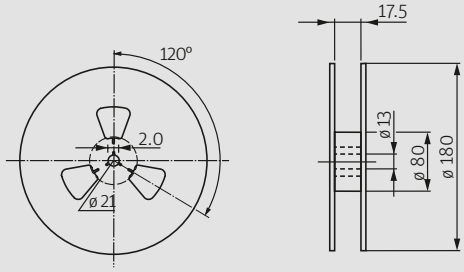
Oscillator VX3 · 5.0 V · Tristate Function

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} ≥ 0.8 V_{DC})	active
low "0" (V_{IL} ≤ 0.2 V_{DC})	high impedance

stop function:
- oscillator stops
- output high impedance

MARKING

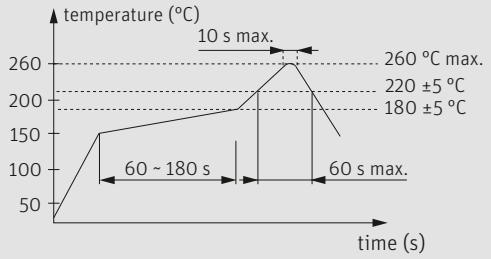
type / frequency

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