



actual size

Oscillator · VX3 · 3.3V

Surface Mount Crystal Oscillator

Features

- HCMOS / TTL compatible type
- tristate function
- full ceramic package

General Data

type	VX3 low load	VX3 heavy load
frequency range	1.8432 ~ 70.0 MHz	1.8432 ~ 70.0 MHz
frequency stability over all (inclusive stability at 25°C, operating temp. range, input voltage change, aging, shock, vibration)	± 100 ppm: VX3J ± 50 ppm: VX3K ± 30 ppm: VX3JS ± 25 ppm: VX3JQ	± 100 ppm: VX3M ± 50 ppm: VX3MH ± 30 ppm: VX3MS ± 25 ppm: VX3MQ
current consumption max. (special data on request)	8 mA: 1.8432 ~ 34.0 MHz 12 mA: 34.001 ~ 50.0 MHz 15 mA: 50.001 ~ 70.0 MHz	10 mA: 1.8432 ~ 34.0 MHz 15 mA: 34.001 ~ 50.0 MHz 20 mA: 50.001 ~ 70.0 MHz
supply voltage	3.3 V ± 10 %	3.3 V ± 10 %
rise & fall time max.	6 ns	6 ns
output load	15 pF	30 pF
output current I_{OH} max. I_{OL} min.	-2 mA 2 mA	-8 mA 8 mA
output low level	$V_{DC} \times 0.1$	$V_{DC} \times 0.1$
output high level	$V_{DC} \times 0.9$	$V_{DC} \times 0.9$
operating temperature	-10 °C ~ +70 °C / -40 °C ~ +85 °C	-10 °C ~ +70 °C / -40 °C ~ +85 °C
storage temperature	-55 °C ~ +125 °C	-55 °C ~ +125 °C
symmetry at 1/2 V_{DC}	45 / 55 % typical	45 / 55 % typical
input current when desable	10 µA max.	10 µA max.
RMS jitter	< 10 ps	< 10 ps

Preferred Type

VX3MH: ± 50 ppm, 3.3V

Marking

type / frequency in MHz
company code / date code

date code: year/month
example: 2A = 2002 January

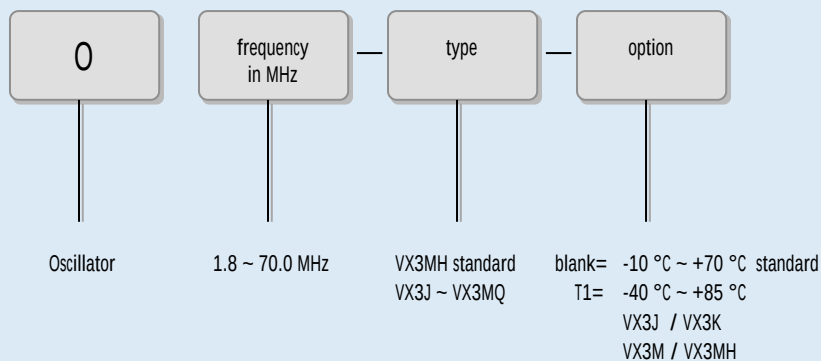
Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F

July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

Enable / Disable Function

pin #1	pin #3
open or high	oscillation
gnd or low	high impedance
e/d delay time: 100 ns max.	

Order Information

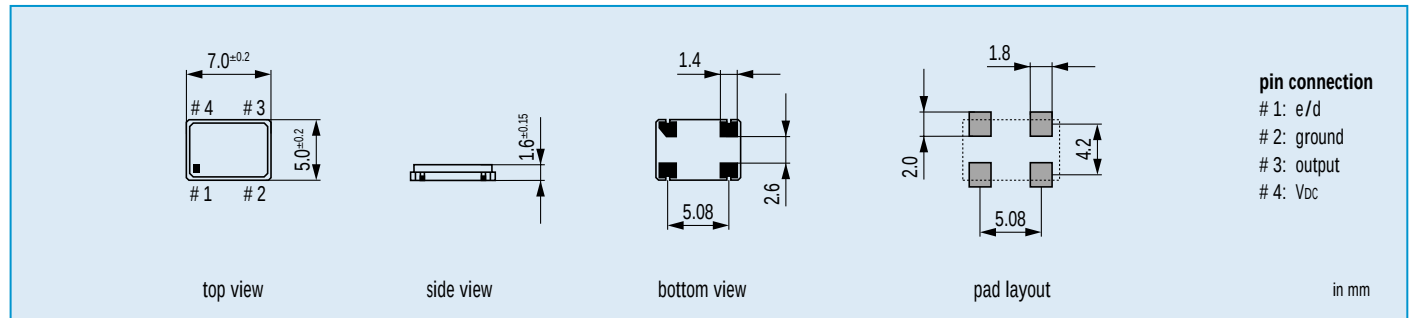


Example: O 20.0-VX3MH

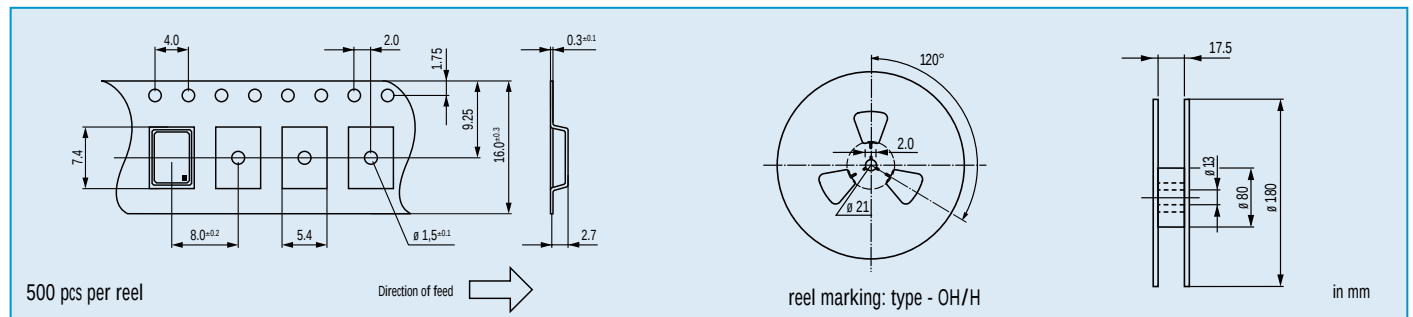


Oscillator · VX3 · 3.3V · Tristate Function

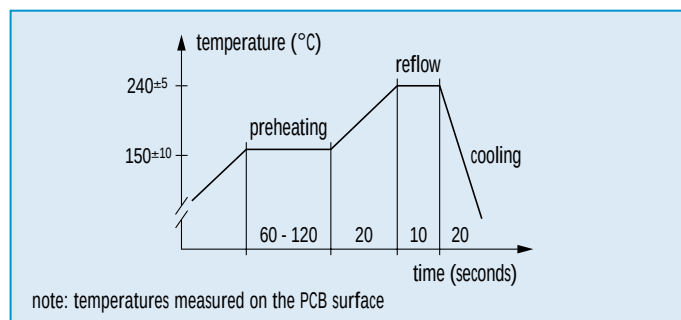
Dimensions



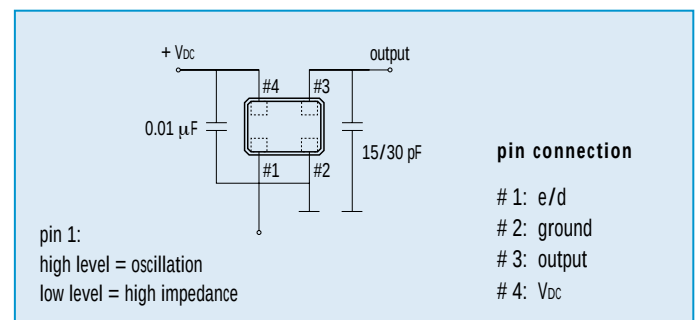
Taping Specification (JIS-C0806)



Reflow Soldering Profile



Test Circuit



Environmental Conditions

1. shock:	DIN IEC 68-2-27 Test Ea, 100g, 6 ms, half sine wave, 3 bumps in main directions
2. vibration:	DIN IEC 68-2-6 Test Fc, 10 ~ 500 Hz, 10g, 2 hours in main directions
3. humidity:	DIN IEC 68-2-3 40°C/93% RH for 21 days
4. solderability:	CECC 008 02 - 7.2.1 infrared reflow condition

Packing Note

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