



actual size

Oscillator · VX3 · 5.0V

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 ~ 80.0 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: VX3E ± 50 ppm: VX3F ± 30 ppm: VX3FS ± 25 ppm: VX3EQ	± 100 ppm: VX3X ± 50 ppm: VX3Y ± 30 ppm: VX3YS ± 25 ppm: VX3XQ
current consumption max. (special data on request)	10 mA: 1.8432 ~ 29.9 MHz 15 mA: 30.000 ~ 34.9 MHz 30 mA: 35.000 ~ 65.9 MHz 50 mA: 66.000 ~ 80.0 MHz	20 mA: 1.8432 ~ 19.9 MHz 35 mA: 20.000 ~ 49.9 MHz 60 mA: 50.000 ~ 70.0 MHz
upply voltage	5.0 V ± 10 %	5.0 V ± 10 %
rise & fall time max.	6 ns	6 ns
output load	15 pF	50 pF
output current I _{OH} max. I _{OL} min.	-4 mA 4 mA	-16 mA 16 mA
output low level	V _{DC} × 0.1	V _{DC} × 0.1
output high level	V _{DC} × 0.9	V _{DC} × 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
RMS jitter	< 10 ps	< 10 ps

Preferred Type

VX3X: ± 100 ppm / 50 pF
VX3E: ± 100 ppm / 15 pF

Marking

type / frequency in MHz
company code / date code

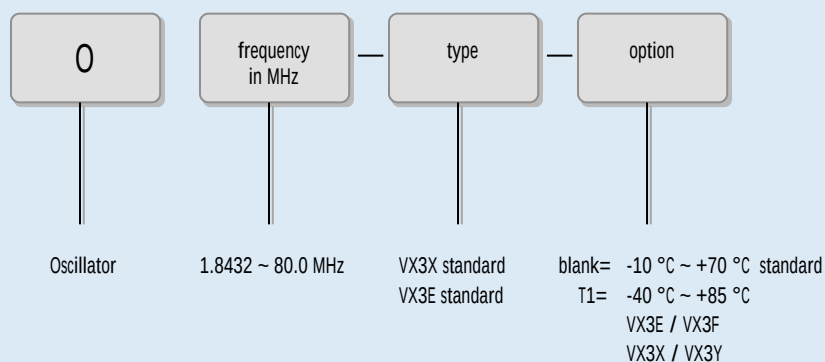
date code: year/month
example: 2A = 2002 January

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

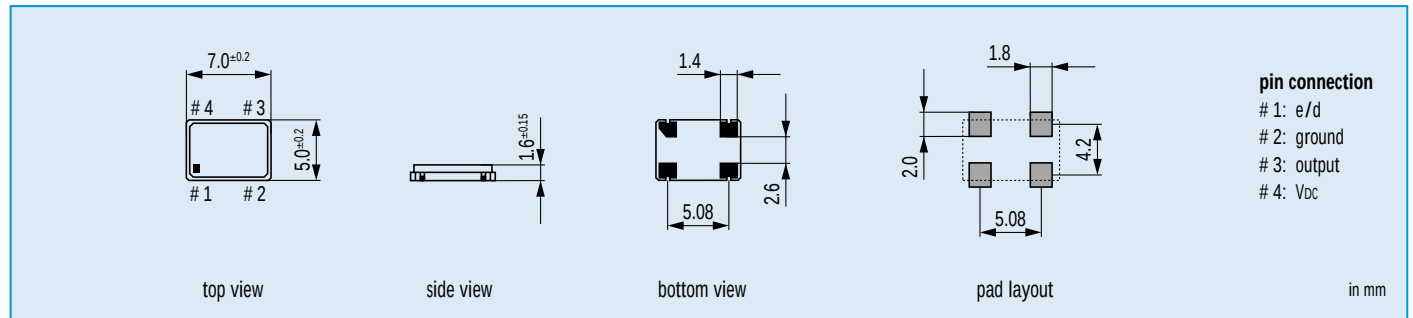


Example: O 20.0-VX3X

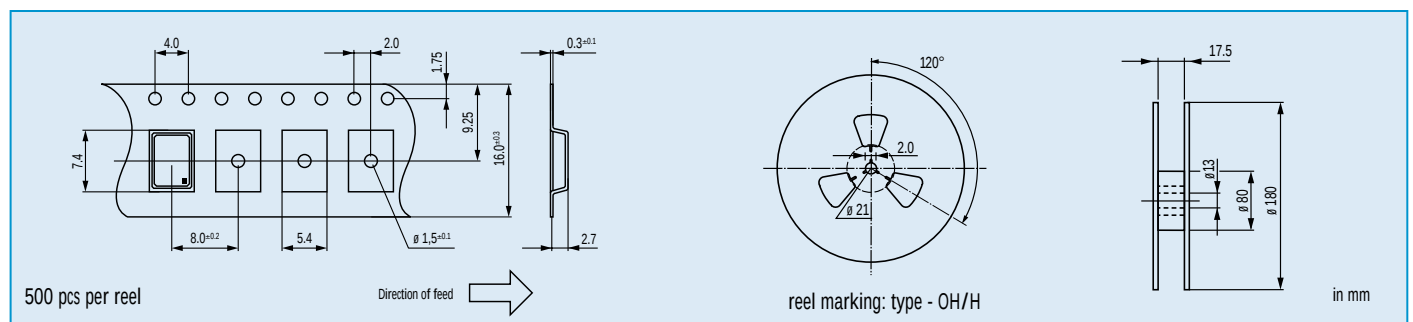


Oscillator · VX3 · 5.0V · Tristate Function

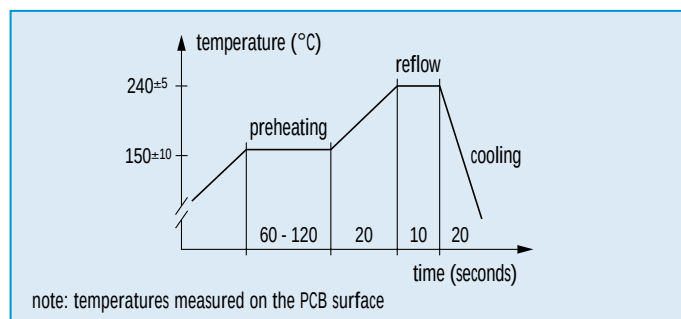
Dimensions



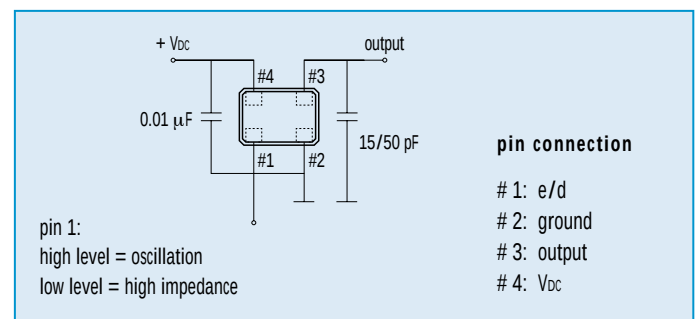
Taping Specification (JIS-C0806)



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