



actual size

Oscillator · VX3 · 5.0 V

Surface Mount Crystal Oscillator

Features

■ HCMOS / TTL compatible type

■ full ceramic package

General Data

type		VX3 low load - 15 pF	VX3 heavy load - 50 pF
frequency range		0.5 ~ 80.0 MHz	0.5 ~ 80.0 MHz
frequency stability over all*		± 20 ppm ~ ± 100 ppm	± 20 ppm ~ ± 100 ppm
current consumption		see table 1	see table 1
supply voltage		5.0 V ± 10 %	5.0 V ± 10 %
output	rise & fall time	see table 3	see table 3
	load	15 pF max.	50 pF max.
	current max.	16 mA	16 mA
	low level max.	$V_{DC} \times 0.1$	$V_{DC} \times 0.1$
	high level min.	$V_{DC} \times 0.9$	$V_{DC} \times 0.9$
temperature	operating	-10 °C ~ +70 °C	-10 °C ~ +70 °C
	extended	-40 °C ~ +85 °C	-40 °C ~ +85 °C
	storage	-55 °C ~ +125 °C	-55 °C ~ +125 °C
phase jitter 12 kHz ~ 20.0 MHz		< 1.0 ps RMS	< 1.0 ps RMS
symmetry at 1/2 V_{DC}		< 45 / 55 % typical	< 45 / 55 % typical

* inclusive stability at 25°C, operating temperature range, input voltage change, aging, shock and vibration.

Table 1: current consumption max.

	15 pF	50 pF
0.5 ~ 29.9 MHz	10 mA	20 mA
30.0 ~ 39.9 MHz	15 mA	35 mA
40.0 ~ 65.9 MHz	30 mA	55 mA
66.0 ~ 80.0 MHz	50 mA	60 mA

note:

- if heavy load versions (30 pF) are loaded with 15 pF, they will keep the current consumption data like low load (15 pF) oscillator
- specific data on request

Preferred Type

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

Table 2: type

stability	± 100 ppm		± 50 ppm		± 30 ppm		± 25 ppm		± 20 ppm	
type	VX3E	VX3X	VX3F	VX3Y	VX3FS	VX3YS	VX3EQ	VX3XQ	VX3EP	VX3XP
output load	15 pF	50 pF	15 pF	50 pF	15 pF	50 pF	15 pF	50 pF	15 pF	50 pF
-10 °C ~ +70 °C	●	●	○	○	○	○	○	○	○	○
-40 °C ~ +85 °C	○	○	○	○						

● standard ○ on request

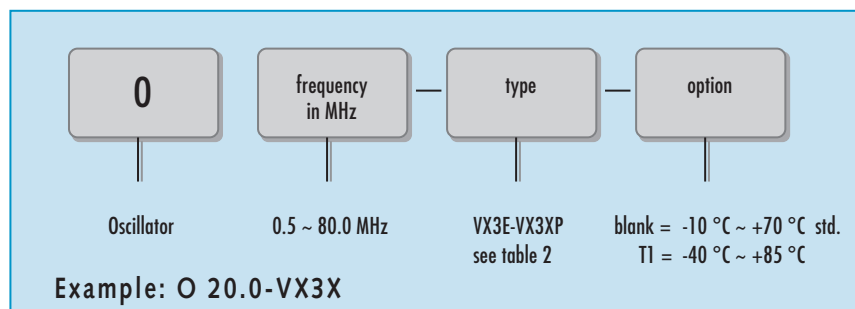
Table 3: rise & fall time max.

6.0 ns: 0.50 ~ 29.9 MHz
5.0 ns: 30.0 ~ 49.9 MHz
4.0 ns: 50.0 ~ 80.0 MHz

note:

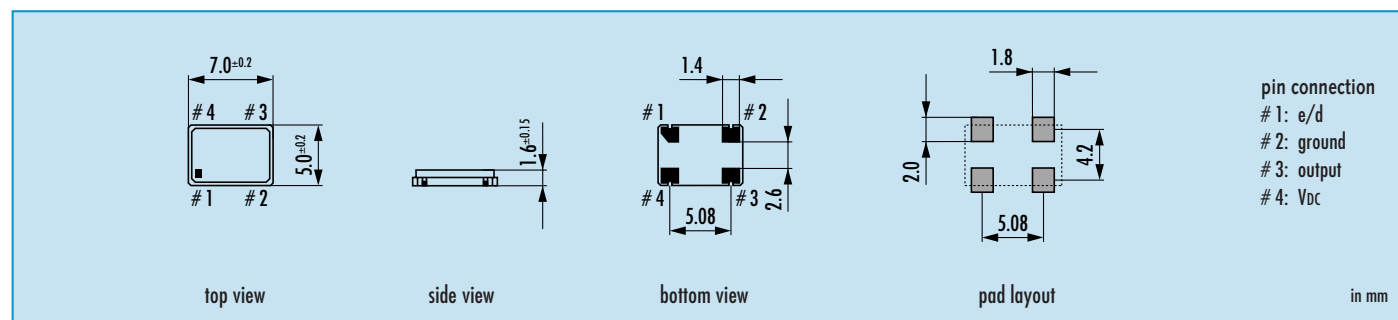
- specific data on request

Order Information

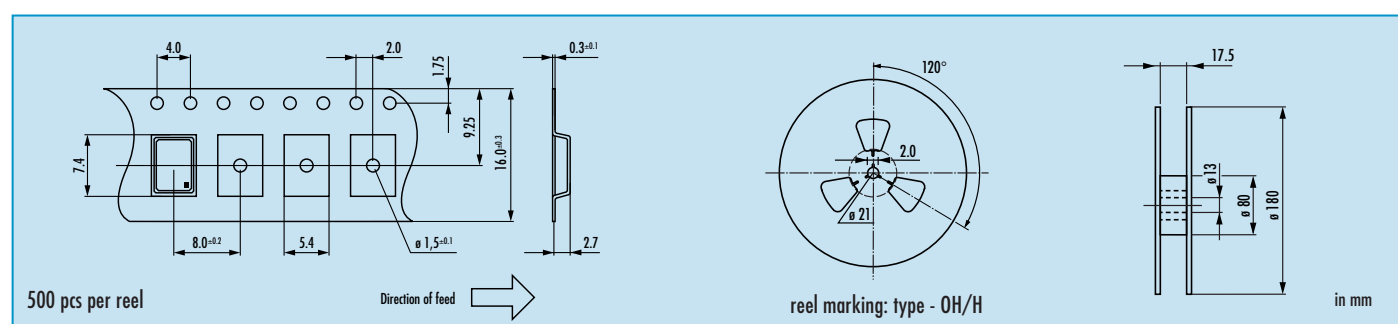


Oscillator · VX3 · 5.0 V · Tristate Function

Dimensions



Taping Specification (JIS-C0806)



Enable / Disable Function

pin #1	pin #3
open or high	oscillation
gnd or low	high impedance

start-up time: < 3 ms typical

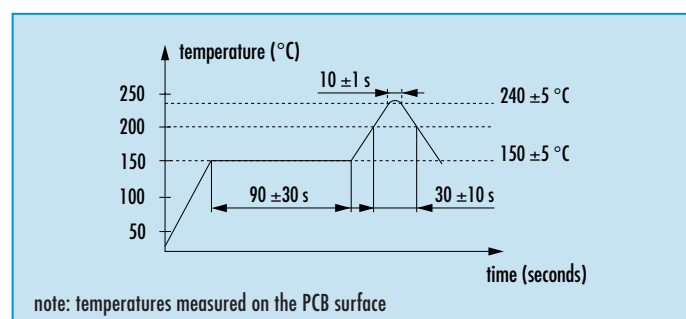
Marking

frequency
 type / date code

date code:
 A ~ M: Jan.- Dec.
 2: 2002
 3: 2003
 4: 2004

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



Packing Note

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