



actual size

Oscillator · VX3 · 3.3 V

Surface Mount Crystal Oscillator

Features

■ HCMOS / TTL compatible type

■ full ceramic package

General Data

type		VX3 low load	VX3 heavy load
frequency range		0.5 ~ 70.0 MHz	0.5 ~ 70.0 MHz
frequency stability over all*		± 25 ppm ~ ± 100 ppm	± 25 ppm ~ ± 100 ppm
current consumption		see table 1	see table 1
supply voltage		3.3 V ± 10 %	3.3 V ± 10 %
output	rise & fall time	see table 3	see table 3
	load	15 pF max.	30 pF max.
	current max.	8 mA	8 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 2: type

stability	± 100 ppm		± 50 ppm		± 30 ppm		± 25 ppm		± 20 ppm	
type	VX3J	VX3M	VX3K	VX3MH	VX3JS	VX3MS	VX3JQ	VX3MQ	VX3JP	VX3MP
output load	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF	15 pF	30 pF
-10 °C ~ +70 °C	○	○	○	●	○	○	○	○	○	○
-40 °C ~ +85 °C	○	○	○	○						

● standard ○ on request

Order Information

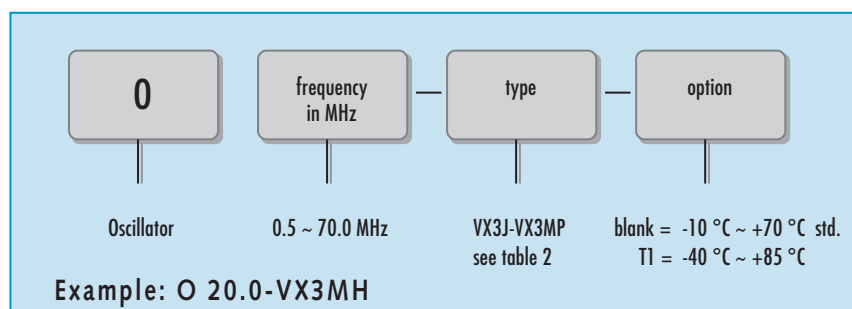


Table 1: current consumption max.

	15 pF	30 pF
0.5 ~ 33.9 MHz	8 mA	10 mA
34.0 ~ 49.9 MHz	12 mA	15 mA
50.0 ~ 70.0 MHz	15 mA	20 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

VX3MH: ± 50 ppm

Table 3: rise & fall time max.

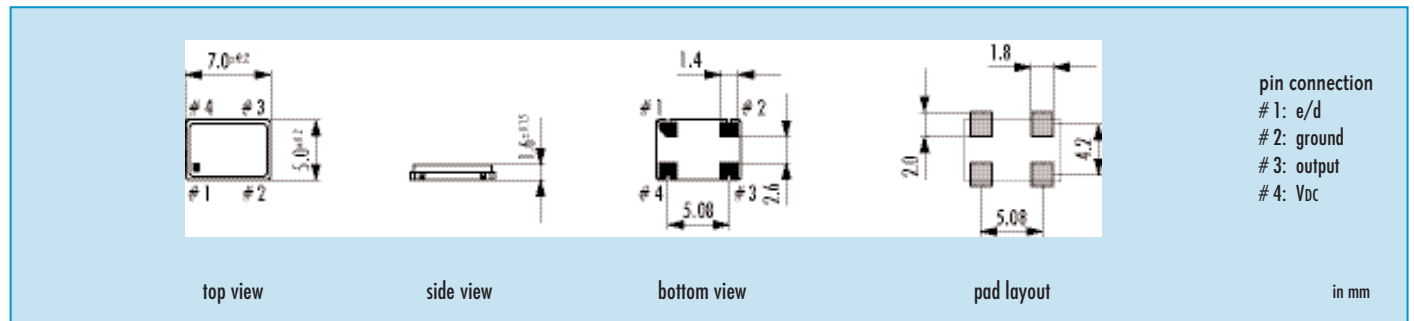
6.0 ns: 0.50 ~ 33.9 MHz
5.0 ns: 34.0 ~ 49.9 MHz
4.0 ns: 50.0 ~ 70.0 MHz

note:

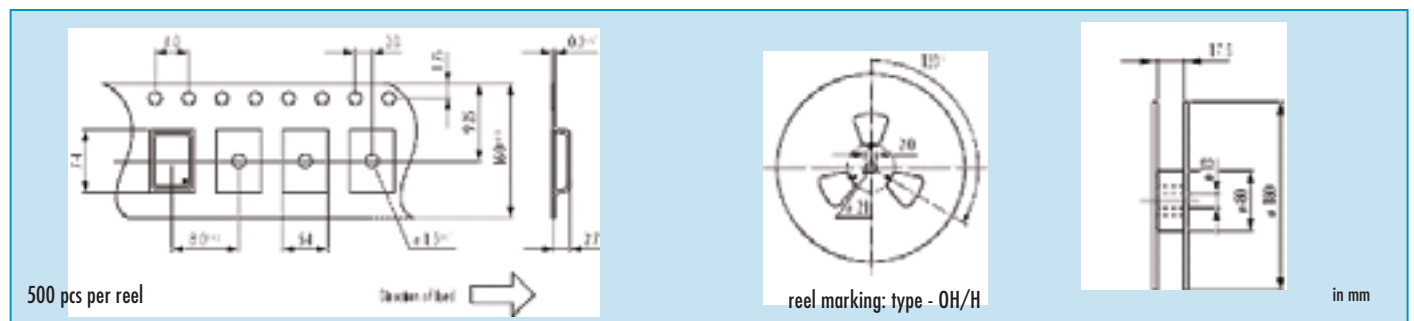
- specific data on request

Oscillator · VX3 · 3.3 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

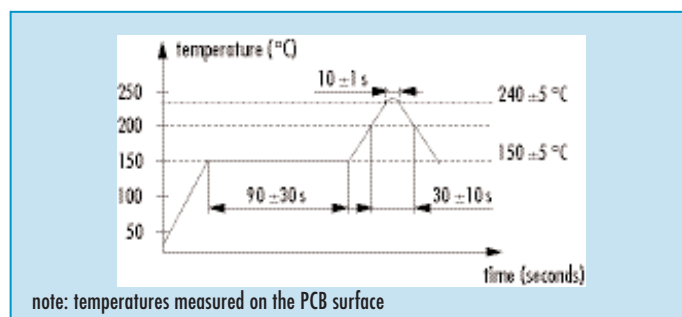
Marking

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