

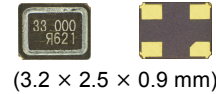
SMD Crystal Unit

3.2 x 2.5 mm / 13 ~ 60 MHz

FCX-04

FEATURES

- AT-cut 13 ~ 60 MHz crystal unit
- Frequency tolerance of ± 7 ppm (@25°C) available
- Wide operating temperature range of -40 ~ +105°C available
- Robust ceramic package with metal lid sealed by electron beam



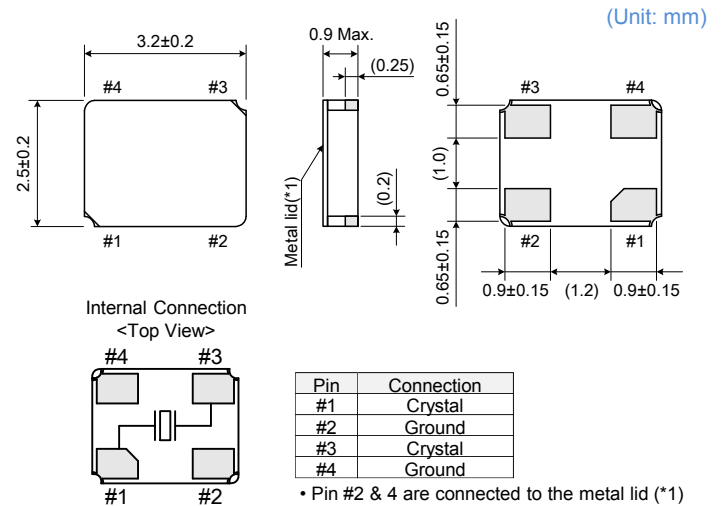
APPLICATIONS

- Various clock sources

STANDARD SPECIFICATIONS

Item	Specifications	Conditions / Remarks
Nominal frequency	13.000 ~ 60.000 MHz	-
Overtone order	Fundamental	-
Frequency tolerance	± 7 ppm ~	@25°C See below for more options
Equivalent series resistance (E.S.R.)	150 Ω Max.	13 MHz to 15 MHz
	60 Ω Max.	15 MHz to 60 MHz
Storage temperature	-55 ~ +125°C	-
Operating temperature	-40 ~ +85°C	See below for more options
	-40 ~ +105°C	
Frequency/temperature characteristics	± 10 ppm (-30 ~ +85°C) ± 30 ppm (-40 ~ +105°C)	Refer to 25°C See below for more options
Load capacitance	5.0 pF ~	Please specify
Drive level	200 μ W Max.	-
Tape and reel	3000 pcs/reel	Reel diameter: ϕ 180 mm

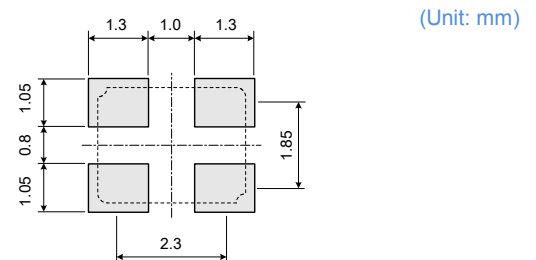
OUTLINE DIMENSIONS



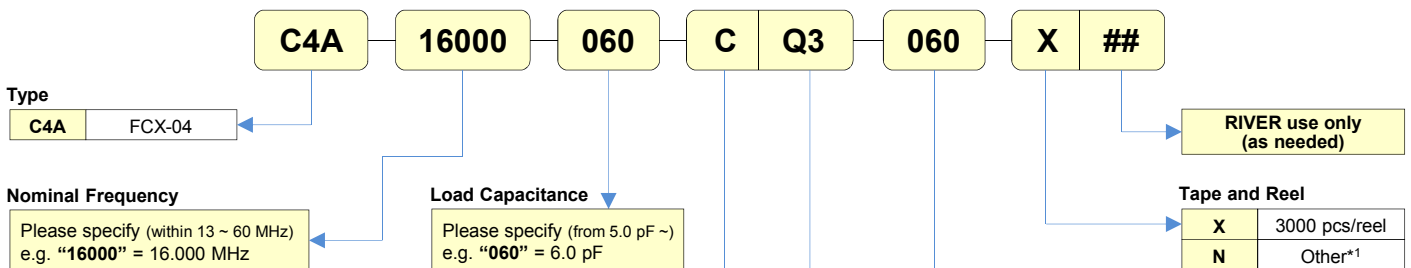
GENERAL NOTES

- Certain combinations of standard options may be classified as high-spec models.
- Please consult us for specifications that do not match the standard specifications.
- The information in this document is subject to change without notice.

RECOMMENDED LAND PATTERN



ORDERING NUMBER GUIDE



Frequency Tolerance

A	± 7 ppm
B	± 10 ppm
C	± 15 ppm
D	± 20 ppm
E	± 30 ppm
F	± 50 ppm
N	Other*1

Frequency/Temperature Characteristics & Operating Temperature

Operating temperature	Frequency/temperature characteristics				
	± 10 ppm	± 15 ppm	± 20 ppm	± 30 ppm	± 50 ppm
-20 ~ +70°C	P1	P2	P3	P4	P5
-30 ~ +85°C	Q1	Q2	Q3	Q4	Q5
-40 ~ +85°C	-	R2	R3	R4	R5
-40 ~ +105°C	-	-	-	S4	S5
Other*1	NN				

Equivalent Series Resistance (E.S.R.)

150	150 Ω Max. (13 MHz to 15 MHz)
060	60 Ω Max. (15 MHz to 60 MHz)
NNN	Other*1

*1. Please consult us for your requirements.

RIVER
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