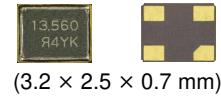


FEATURES

- 3225 size AT-cut crystal unit (9 MHz to 60 MHz)
- Frequency tolerance of ± 7 ppm (@25 °C) available
- Wide operating temperature range of -40 °C to +125 °C available
- Low frequencies (from 9 MHz) available
- High pulling-sensitivity
- Robust ceramic package with metal lid sealed by electron beam
- Specifications in conformity with AEC-Q200 available on request



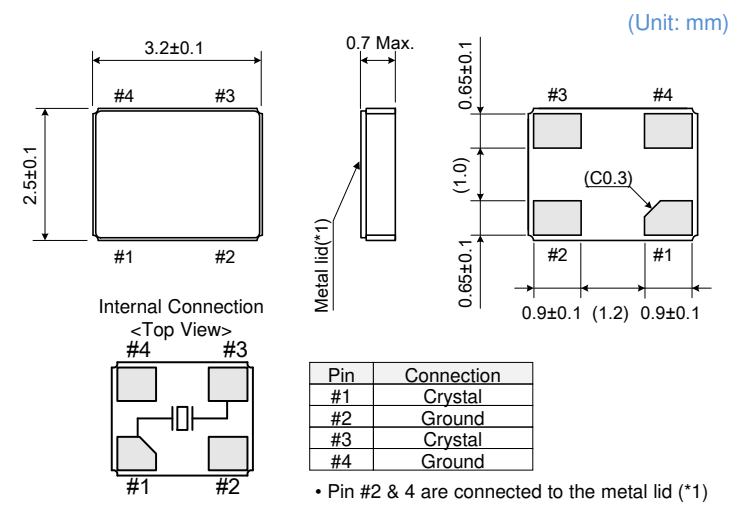
APPLICATIONS

- Car audio systems / car GPS units / remote keyless entry / dash cameras
- Low-frequency applications with compact sizes

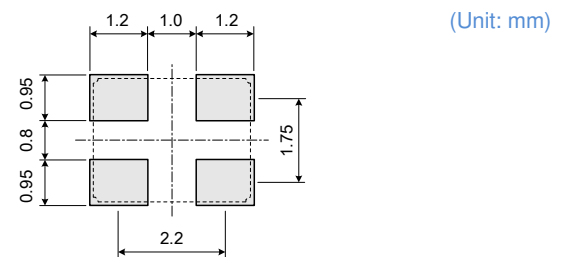
STANDARD SPECIFICATIONS

Item	Specifications	Unit	Conditions (Remarks)
Nominal frequency	9 to 60	MHz	-
Overtone order	Fundamental	-	-
Frequency tolerance	± 7	ppm	@25 °C (See below for more options)
Equivalent series resistance (Max.)	300	Ω	9 to 9.5 MHz
	150	Ω	9.5 to 12 MHz
	80	Ω	12 to 13 MHz
	60	Ω	13 to 16 MHz
	50	Ω	16 to 60 MHz
Storage temperature	-55 to +125	°C	-
Operating temperature	-40 to +85 -40 to +125	°C	(See below for more options)
Frequency / temperature characteristics	± 10 (-30 °C to +85 °C) ± 50 (-40 °C to +125 °C)	ppm	Refer to 25 °C (See below for more options)
Load capacitance	5.0	pF	(Please specify)
Drive level (Max.)	200	μ W	-
Tape and reel	3000	pcs/reel	Reel diameter : ϕ 180 mm

OUTLINE DIMENSIONS



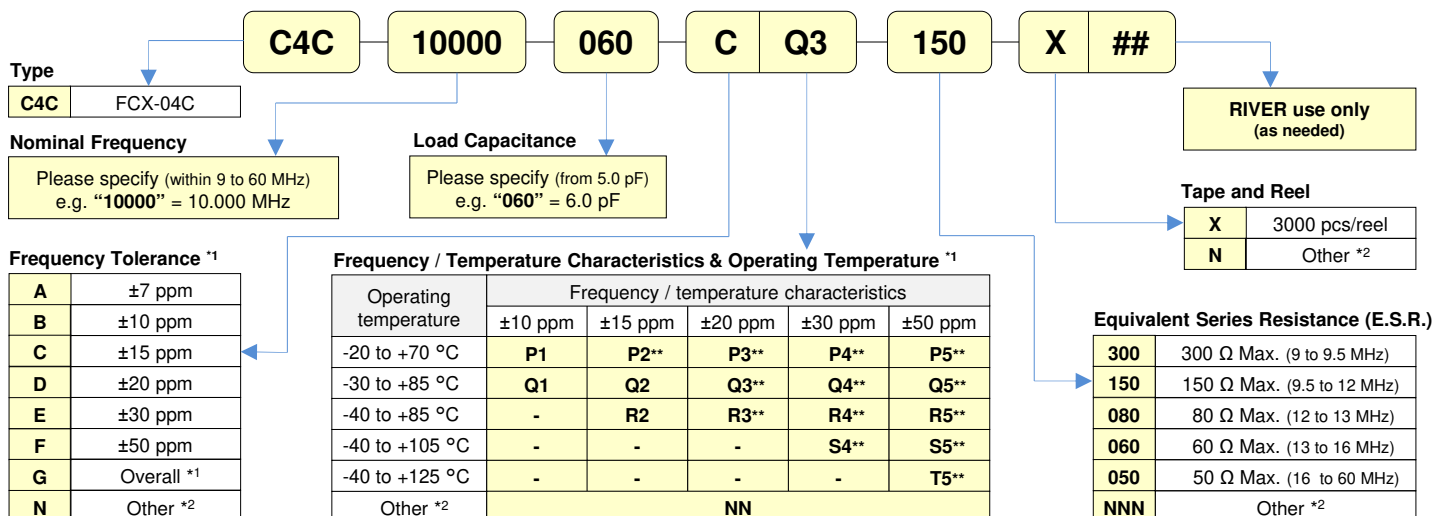
RECOMMENDED LAND PATTERN



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.

ORDERING NUMBER GUIDE



1. For overall frequency stability inclusive of stability at 25 °C and an operating temp. range, please select "G (Overall)" from the table "Frequency Tolerance" followed by a code that is with "" from the table "Freq./Temp. Characteristics & Operating Temp". (e.g. GP2 = Overall ± 15 ppm (-20 to +70 °C))

*2. Please consult us for your requirements.