

# SMD Crystal Unit

2.5 mm x 2.0 mm / 12 MHz to 80 MHz

FCX-05

## FEATURES

- 2520 size AT-cut crystal unit (12 MHz to 80 MHz)
- Frequency tolerance of  $\pm 7$  ppm (@25 °C) available
- Wide operating temperature range of -40 °C to +125 °C available
- High pulling-sensitivity
- Robust ceramic package with metal lid sealed by electron beam
- Specifications in conformity with AEC-Q200 available on request



(2.5 × 2.0 × 0.55 mm)



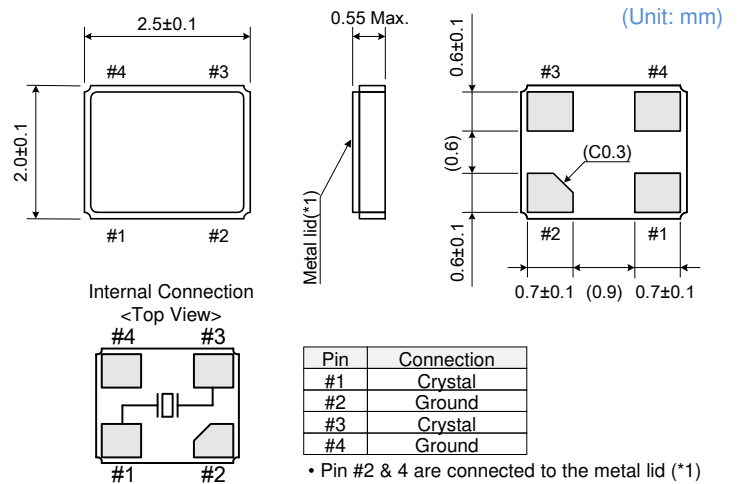
## APPLICATIONS

- Car audio systems / car GPS units / remote keyless entry / dash cameras

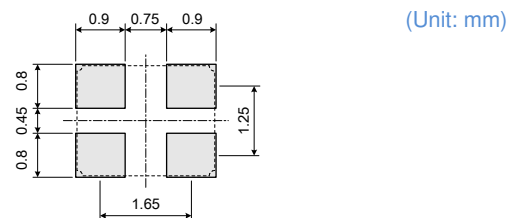
## STANDARD SPECIFICATIONS

Item	Specifications	Unit	Conditions (Remarks)
Nominal frequency	12 to 80	MHz	-
Overtone order	Fundamental	-	-
Frequency tolerance	$\pm 7$	ppm	@25 °C (See below for more options)
Equivalent series resistance (Max.)	150	$\Omega$	12 MHz to 13 MHz
	100	$\Omega$	13 MHz to 17 MHz
	80	$\Omega$	17 MHz to 23 MHz
	60	$\Omega$	23 MHz to 30 MHz
	50	$\Omega$	30 MHz to 80 MHz
Storage temperature	-55 to +125	°C	-
Operating temperature	-40 to +85 -40 to +125	°C	(See below for more options)
Frequency / temperature characteristics	$\pm 10$ (-30 °C to +85 °C) $\pm 50$ (-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	$\mu$ W	-
Tape and reel	3000	pcs/reel	Reel diameter: $\phi$ 180 mm

## OUTLINE DIMENSIONS



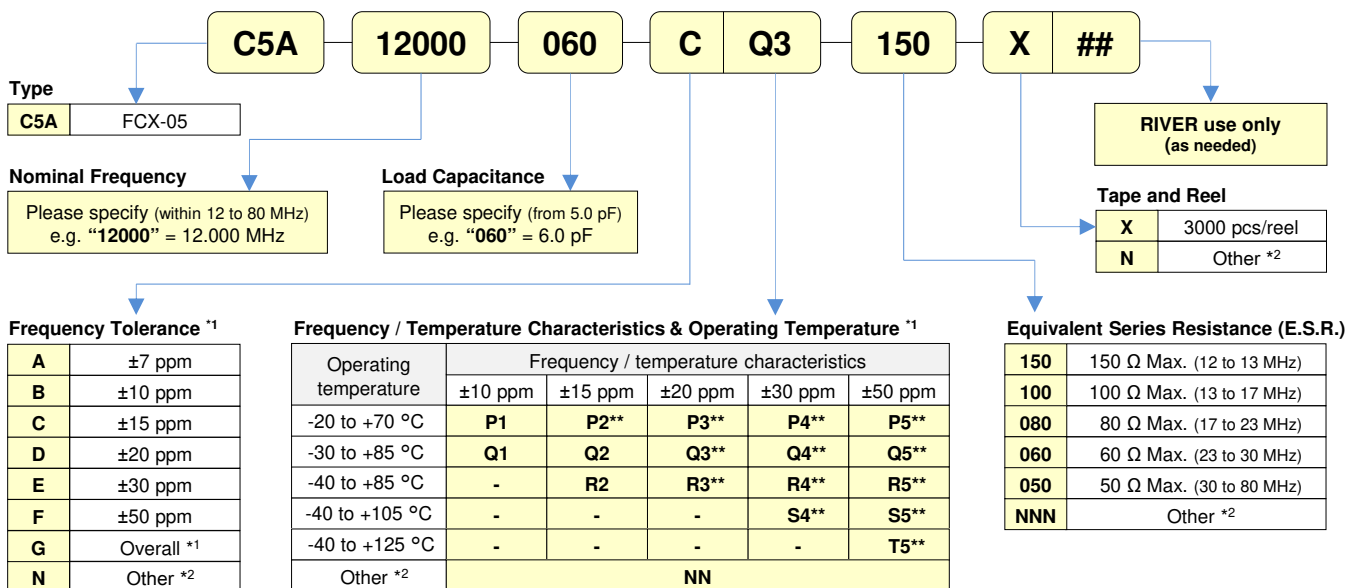
## RECOMMENDED LAND PATTERN



## 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  $\pm 15$  ppm (-20 to +70 °C))

\*2. Please consult us for your requirements.

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