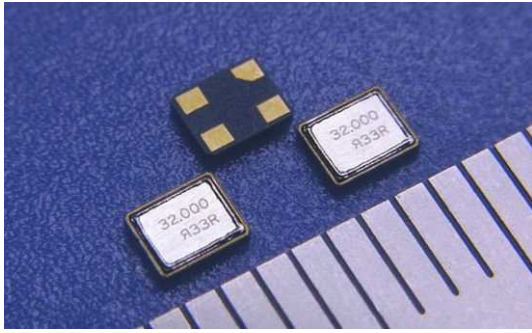


# SMD Crystal Unit

# FCX-05

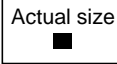


## ◆ FEATURES

- AT-cut crystal unit / frequency range 11 ~ 80 MHz.
- 2.5 × 2.0 × 0.55 mm Max. / 10 mg.
- Supports the low frequency from 11 MHz.
- Frequency tolerance ±7 ppm available.
- Automotive operating temperature range -40 ~ +125°C available.
- Ceramic with metal lid sealed by patented Electron-Beam-Soldering.
- 14 years of production history.

## ◆ APPLICATIONS

- In-vehicle units.
- Applications that require high pulling-sensitivity.



## ◆ STANDARD SPECIFICATIONS / ORDERING INFORMATION

Ordering Number (Sample): **C5A** — **12000** — **060** — **C Q3** — **150** — **H X ##**  
 (1) (2) (3) (4) (5) (6) (7) (8) (9)

(1) Type
C5A

(2) Nominal Frequency	
11.000 ~ 80.000 MHz	e.g. 12.000 MHz = 12000

(3) Load Capacitance	
5.0, 6.0, 7.0 pF*1	e.g. 6.0 pF = 060

\*1 Other capacitances available

(4) Frequency Tolerance @ 25°C	
±7 ppm	A
±10 ppm	B
±15 ppm	C
±20 ppm	D
±30 ppm	E
±50 ppm	F
Other	N

(5) Operating Temperature	Frequency Temperature Characteristics (with reference to 25°C)				
	±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
-40 ~ +125°C	-	-	-	-	T5
Other	NN				

(6) Equivalent Series Resistance	
11 ~ 12 MHz: 200Ω Max.	200
12 ~ 13 MHz: 150Ω Max.	150
13 ~ 17 MHz: 100Ω Max.	100
17 ~ 23 MHz: 80Ω Max.	080
23 ~ 30 MHz: 60Ω Max.	060
30 ~ 80 MHz: 50Ω Max.	050
Other	NNN

(7) Storage Temperature*2	
-40 ~ +85°C	G
-40 ~ +105°C	H
-55 ~ +125°C	J
Other	N

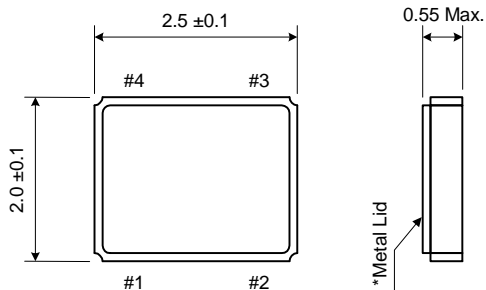
\*2 Not applicable to packing materials

(8) Tape & Reel (φ180 mm)	
3000 pcs/reel	X
Other	N

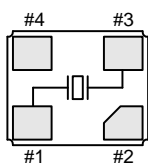
(9) RIVER Use Only (As needed)	
Drive Level	200 μW Max.

- The codes for the Ordering Number are indicated in blue, and the specifications are described in black.
- Not all combinations of options are available as standard.
- AEC-Q200 compliant spec available upon request.
- For specifications that include "Overall Frequency-Tolerance", please select "N" for the (4) Frequency Tolerance and let us know your specific requirements.
- For specifications other than those above, please contact our sales / website and let us know your specific requirements.

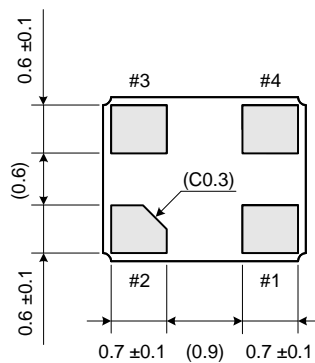
## ◆ OUTLINE DIMENSIONS



<Top View>



Internal Connection:  
 Pin #1. Crystal  
 Pin #2. Ground & Metal Lid\*  
 Pin #3. Crystal  
 Pin #4. Ground & Metal Lid\*



## ◆ LAND PATTERN

Unit: mm

