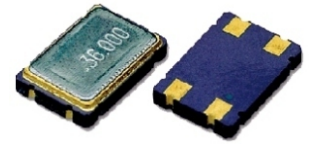


# U2 Type Crystal Unit

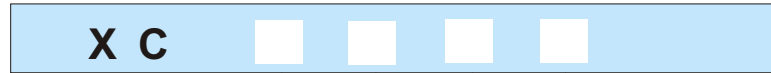
## ROHS Compliant Standard



### FEATURE

- 1、7.0×5.0×1.0mm ceramic SMD package.
- 2、16mm width tape & reel package for automatic assembly.
- 3、Good aging.

### Numbering system



Load Capacitance		
A: 8pF	B: 9pF	C: 10pF
D: 12pF	E: 15pF	F: 16pF
G: 18pF	H: 20pF	I: 30pF
J: 32pF	K: 50pF	L: 6pF
M: 12.5pF	S: Series	

Temperature Range	
B: -0°C to +55°C	
I: -10°C to +60°C	
C: -20°C to +70°C	
L: -40°C to +85°C	

Frequency Tolerance vs. Room Temperature		
A: ± 5ppm	B: ± 10ppm	P: ± 15ppm
C: ± 20ppm	D: ± 25ppm	E: ± 30ppm

Frequency Stability vs Temperature Range		
A: ± 5ppm	B: ± 10ppm	P: ± 15ppm
C: ± 20ppm	D: ± 25ppm	E: ± 30ppm

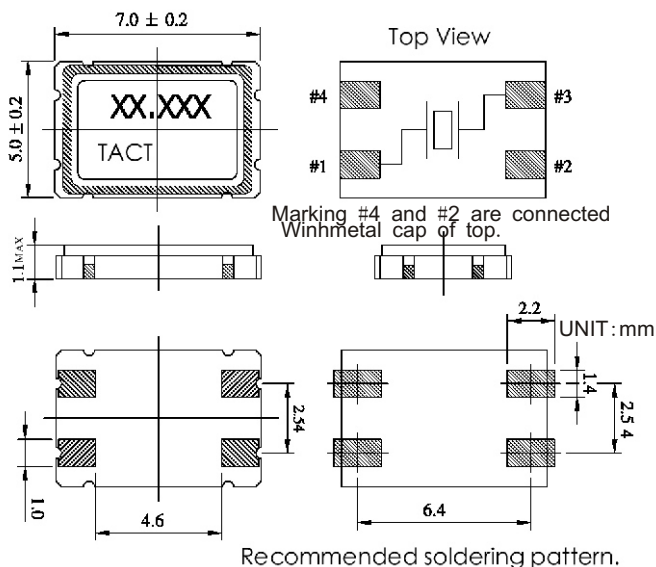
### ELECTRICAL SPECIFICATION

Storage Temp. Range	-40°C ~ +85°C
Drive Level	10 μw typical
Shunt Capacitance (Co)	7.0pF Max
Insulation Resistance	500M Ω Min. @ At DC100V
Aging	First YEARv1 ± 5PPM SUB YEARv1 ± 5PPM

### EQUIVALENT SERIES RESISTANCE

TYPE	FREQUENCY	MOOE	E. S. R
	8MHz ≤ Freq < 11.0MHz	AT1	< 110 Ω
	11MHz ≤ Freq < 14.1MHz	AT1	< 50 Ω
	14.1MHz ≤ Freq < 18MHz	AT1	< 45 Ω
	18MHz ≤ Freq < 20.1MHz	AT1	< 30 Ω
	20.1MHz ≤ Freq.	AT1	< 25 Ω
	32.0MHz ≤ Freq < 48MHz	AT3	< 110 Ω
	48.0MHz ≤ Freq < 70MHz	AT3	< 100 Ω
	28.0MHz ≤ Freq.	BT1	< 40 Ω

### OUTLINE DRAWING



### FREQ. STABILITY VS. TEMP. RANGE

Temp. (°C)	PPM	A: ± 5	B: ± 10	P: ± 15	C: ± 20	C: ± 25	C: ± 30
B	-0 ~ +50	○	○	○	○	○	○
I	-10 ~ +60	×	○	○	○	○	○
C	-20 ~ +70	×	○	○	○	○	○
L	-40 ~ +85	×	×	×	○	○	○

○: Standard △: Available (case by case) ×: Not available