

# U1 Type Crystal Unit

## ROHS Compliant Standard



### FEATURE

1. 6.0×3.5×1.0mm ceramic SMD package.
2. 16mm width tape & reel package for automatic assembly.
3. Tight tolerance 10ppm available.



### 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

### EQUIVALENT SERIES RESISTANCE (ESR)

TYPE	FREQUENCY	MOOE	E. S. R
	9.6MHz ≤ Freq. < 12MHz	AT1	< 50 Ω
	12MHz ≤ Freq. < 13MHz	AT1	< 45 Ω
	13MHz ≤ Freq. < 19MHz	AT1	< 40 Ω
	19MHz ≤ Freq. < 20MHz	AT1	< 35 Ω
	20MHz ≤ Freq. < 30MHz	AT1	< 30 Ω
	30MHz ≤ Freq.	AT1	< 25 Ω

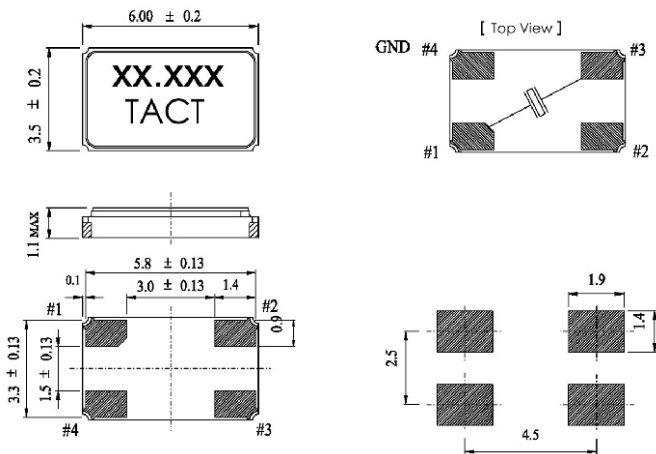
### ELECTRICAL SPECIFICATION

Storage Temperature Range	-40°C ~ +85°C
Drive Level	10 μw typical
Shunt Capacitance (Co)	7.0pF Max
Insulation Resistance	500M Ω Min . @ At DC 100V
Aging	± 1.0ppm/year

### Standard Frequency:

9.6MHz, 10MHz, 11MHz, 12MHz, 12.8MHz, 13.0MHz, 14.4MHz, 15.36MHz, 16MHz, 16.367MHz, 16.9344MHz, 19.2MHz, 19.68MHz, 20MHz, 24MHz, 26MHz, 38.83936MHz

### OUTLINE DRAWING



### FBEQ. STABILITY VS. TEMP. PANGE

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

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

Product Profile SMD Quartz Crystal