

14SMX Crystals

SURFACE MOUNT
QUARTZ CRYSTALS

ISSUE 10; 23 SEPT 2008



Delivery Options

- Please contact our sales office for current leadtimes

Holder Style

- 14SMX surface mount crystals are encapsulated in a ceramic package with a seam welded metal lid

General Specifications

- Load Capacitance (C_L): 10pF to 75pF or Series
- Drive Level: 0.1mW max
- Static Capacitance (C_0): 7pF max

Packaging

- 14SMX surface mount crystals are available packaged individually or on tape and reel

Standard Frequency Tolerances and Stability

- ± 15 ppm, ± 20 ppm, ± 30 ppm, ± 50 ppm, ± 100 ppm

Operating Temperature Ranges

- 0 to 50°C -30 to 80°C
- -10 to 60°C -40 to 85°C
- -20 to 70°C

Storage Temperature Range

- -40 to 85°C

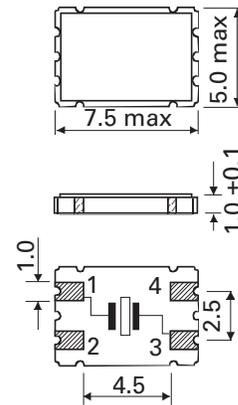
Marking includes

- Frequency

Minimum Order Information Required

- Frequency + Holder + Frequency Tolerance @ 25°C
+ Frequency Stability + Operating Temperature Range +
Circuit Condition + Overtone Order

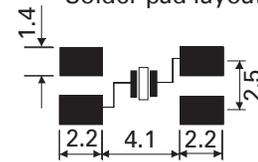
Outline in mm



Pad connections

1. Crystal
2. GND & lid
3. Crystal
4. GND & lid

Solder pad layout





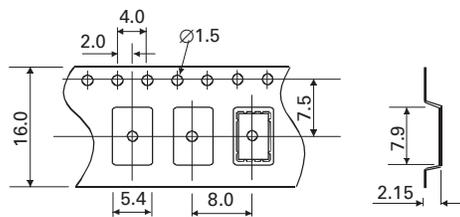
Electrical Specification – maximum limiting values

Frequency Range	Frequency Tolerance @ 25°C ±2°C	Operating Temperature Range	Frequency Stability Available Over Operating Temperature		ESR max.	Vibration Mode
			Minimum	Maximum		
8.0 to <10.0MHz	±10ppm to ±100ppm	0 to 50°C	±5ppm	±100ppm	60Ω	Fundamental AT cut
		-10 to 60°C				
		-20 to 70°C				
		-30 to 80°C	±15ppm			
-40 to 85°C		±20ppm				
10.0 to <16.0MHz		0 to 50°C	±5ppm			
		-10 to 60°C				
		-20 to 70°C				
		-30 to 80°C	±15ppm			
-40 to 85°C		±20ppm				
16.0 to <32.0MHz		0 to 50°C	±5ppm			
		-10 to 60°C				
	-20 to 70°C					
	-30 to 80°C	±15ppm				
-40 to 85°C	±20ppm					
28.0 to <84.0MHz	0 to 50°C	±5ppm	60Ω	3rd Overtone AT cut		
	-10 to 60°C					
	-20 to 70°C					
	-30 to 80°C	±15ppm				
-40 to 85°C	±20ppm					
84.0 to <100.0MHz	0 to 50°C	±5ppm	80Ω	5th Overtone AT cut		
	-10 to 60°C					
	-20 to 70°C					
	-30 to 80°C	±15ppm				
-40 to 85°C	±20ppm					

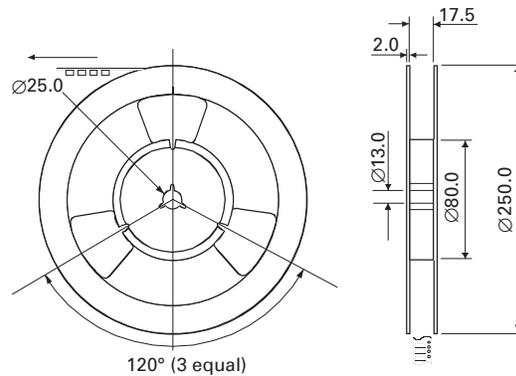
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Npote: High frequency fundamentals are available up to 200.0MHz, please contact Applications Support.

Outline in mm - Tape



Outline in mm - Reel



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