14SMX CRYSTALS

ISSUE 7; 9 SEPTEMBER 1999

Delivery Options

- Common frequencies are available from stock. Please see p142 for details

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 Frequencies

- 9.83040MHz, 10.0MHz, 11.05920MHz, 12.0MHz, 12.2880MHz, 14.318180MHz, 14.74560MHz, 15.0MHz, 16.0MHz, 16.000310MHz, 16.58880MHz, 16.3840MHz, 18.4320MHz, 19.66080MHz, 20.0MHz, 20.27520MHz, 24.0MHz, 24.000140MHz, 35.25120MHz, 36.0MHz, 38.000530MHz, 40.0MHz, 40.320MHz, 50.0MHz, 56.4480MHz, 64.0MHz, 66.6660MHz

Standard Frequency Tolerances and Stabilities

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

Operating Temperature Ranges

- 0 to 50°C
  –10 to 60°C
  –20 to 70°C

Storage Temperature Range

- –55 to 125°C

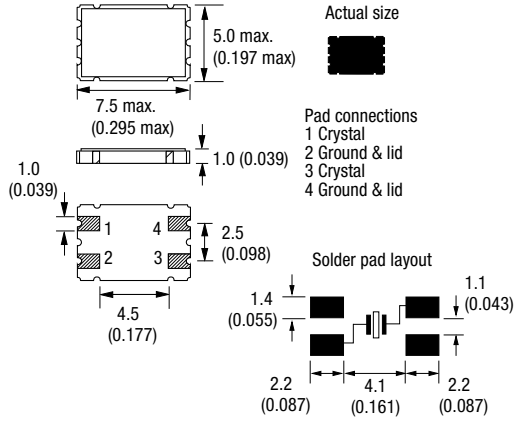
Marking

- Frequency only

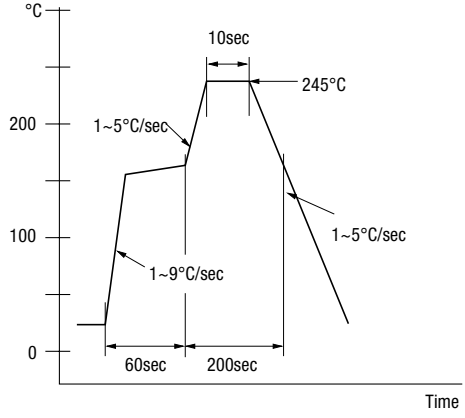
Minimum Order Information Required

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

Outline in mm (inches) - (scale 2:1)



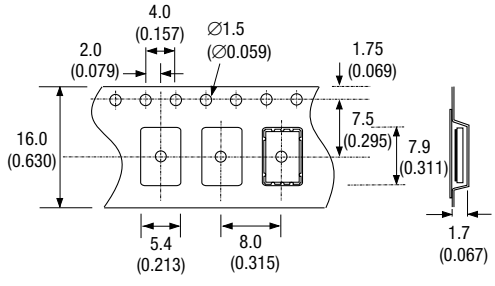
Typical Solder Condition - Infrared Reflow



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		
9.83040 to < 10.0MHz	±10ppm to ±100ppm	0 to 50°C	±5ppm	±100ppm	80Ω	Fundamental AT cut
		–10 to 60°C	±5ppm	±100ppm		
		–20 to 70°C	±5ppm	±100ppm		
		–30 to 80°C	±15ppm	±100ppm		
		–40 to 85°C	±20ppm	±100ppm		
10.0 to < 16.0MHz	±10ppm to ±100ppm	0 to 50°C	±5ppm	±100ppm	60Ω	Fundamental AT cut
		–10 to 60°C	±5ppm	±100ppm		
		–20 to 70°C	±5ppm	±100ppm		
		–30 to 80°C	±15ppm	±100ppm		
		–40 to 85°C	±20ppm	±100ppm		
16.0 to 41.0MHz	±10ppm to ±100ppm	0 to 50°C	±5ppm	±100ppm	40Ω	Fundamental AT cut
		–10 to 60°C	±5ppm	±100ppm		
		–20 to 70°C	±5ppm	±100ppm		
		–30 to 80°C	±15ppm	±100ppm		
		–40 to 85°C	±20ppm	±100ppm		
32.0 to 84.0MHz	±10ppm to ±100ppm	0 to 50°C	±3ppm	±100ppm	60Ω	3rd Overtone AT cut
		–10 to 60°C	±5ppm	±100ppm		
		–20 to 70°C	±5ppm	±100ppm		
		–30 to 80°C	±15ppm	±100ppm		
		–40 to 85°C	±20ppm	±100ppm		
84.0 to 100.0MHz	±10ppm to ±100ppm	0 to 50°C	±3ppm	±100ppm	80Ω	5th Overtone AT cut
		–10 to 60°C	±5ppm	±100ppm		
		–20 to 70°C	±5ppm	±100ppm		
		–30 to 80°C	±15ppm	±100ppm		
		–40 to 85°C	±20ppm	±100ppm		
Note: Frequencies are available up to 150.0MHz, please contact Application Support						

Outline in mm (inches) - Tape



Outline in mm (inches) - Reel (scale 1:7)