

87SMX Crystals

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RoHS
2002/95/EC

Delivery Options

- Please contact our sales office for current leadtimes

Holder Style

- 87SMX crystals are resistance welded, hermetically sealed in an inert atmosphere with glass to metal seals securing the lead wires. The low profile crystal is attached to a surface mount base. A low cost 'drop on' alternative to the 86SMX package

General Specifications

- Load Capacitance (C_L): 10pF to 75pF or Series
- Drive Level: 500 μ W max
- Static Capacitance (C_0): 7pF max
- Ageing: ± 3 ppm typical per year

Standard Frequency Tolerances and Stabilities

- ± 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 -55 to 105°C

Storage Temperature Range

- 55 to 125°C

Environmental Specification

- Shock: 981m/s² for 6ms, three shocks in each direction along three mutually perpendicular planes,
- Vibration: 10 to 60Hz 0.75mm displacement, 60 to 500Hz 98.1m/s² acceleration, 30 minute in each of three mutually perpendicular planes

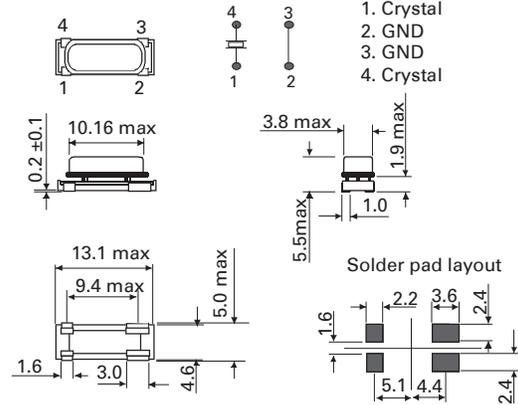
Marking includes

- Frequency

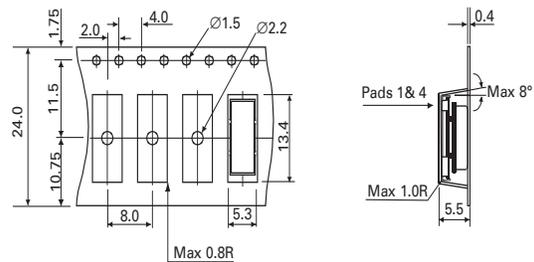
Minimum Order Information Required

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

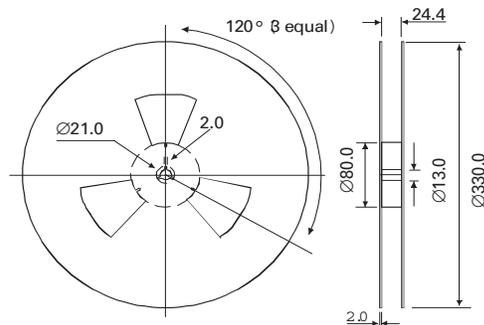
Outline in mm



Outline in mm - Tape



Outline in mm - Reel





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		
3.2 to <4.0MHz	±10ppm to ±100ppm	0 to 50°C	±15ppm	±100ppm	300Ω	Fundamental AT cut
		-10 to 60°C	±20ppm			
		-20 to 70°C	±20ppm			
		-30 to 80°C	±25ppm			
		-40 to 85°C	±30ppm			
		-55 to 105°C	±100ppm	±500ppm		
4.0 to <5.5MHz	±10ppm to ±100ppm	0 to 50°C	±15ppm	±100ppm	130Ω	Fundamental AT cut
		-10 to 60°C	±20ppm			
		-20 to 70°C	±20ppm			
		-30 to 80°C	±25ppm			
		-40 to 85°C	±30ppm			
		-55 to 105°C	±100ppm	±500ppm		
5.5 to <8.0MHz	±10ppm to ±100ppm	0 to 50°C	±15ppm	±100ppm	60Ω	Fundamental AT cut
		-10 to 60°C	±20ppm			
		-20 to 70°C	±20ppm			
		-30 to 80°C	±25ppm			
		-40 to 85°C	±30ppm			
		-55 to 105°C	±100ppm	±500ppm		
8.0 to <40.0MHz	±10ppm to ±100ppm	0 to 50°C	±15ppm	±100ppm	40Ω	Fundamental AT cut
		-10 to 60°C	±20ppm			
		-20 to 70°C	±20ppm			
		-30 to 80°C	±25ppm			
		-40 to 85°C	±30ppm			
		-55 to 105°C	±100ppm	±500ppm		
27.0 to 50.0MHz	Inclusive with Frequency Stability	0 to 50°C	±50ppm	±100ppm	40Ω	Fundamental BT cut
		-10 to 60°C	±70ppm			
		-20 to 70°C	±100ppm			
26.0 to 100.0MHz	±10ppm to 100ppm	0 to 50°C	±15ppm	±100ppm	100Ω	3rd Overtone AT cut
		-10 to 60°C	±20ppm			
		-20 to 70°C	±20ppm			
		-30 to 80°C	±25ppm			
		-40 to 85°C	±50ppm			
		-55 to 105°C	±100ppm	±500ppm		

Note. For any other frequencies / specification please contact our sales office.

SURFACE MOUNT QUARTZ CRYSTALS