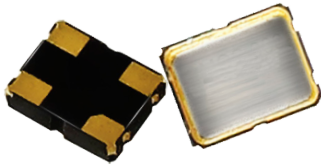


# Quartz Crystal Ceramic SMD

**FHQ**



2.5 x 2.0mm Ceramic SMD

## Product Features

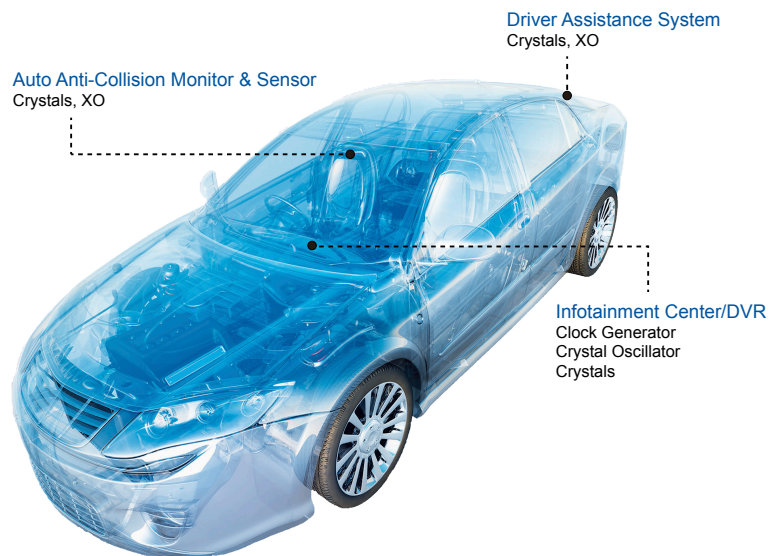
- Rugged AT-cut crystal construction
- Miniature 2.5 x 2.0mm ceramic package
- Available on tape & reel; 8mm tape, 3000 units per reel
- Pb-free and RoHS/Green compliant
- Support high temperature up to 125°C
- Wide frequency range -8~66MHz
- AEC-Q200 compliant
- Grade 3, Grade 2, Grade 1

## Product Description

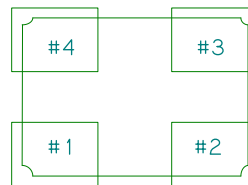
The 4-pad FHQ Series seam seal devices incorporate a sub-miniature AT-cut crystal resonator housed in a standard 2.5 x 2.0mm ceramic package. These compact crystal are ideal for surface mounting in densely populated PCB applications. The FHQ series is designed to meet the requirements of AEC-Q200 Grade 3, Grade 2 and Grade 1 for automotive applications, and supports operating temperature range of -40 up to +125°C.

## Applications

- Automotive



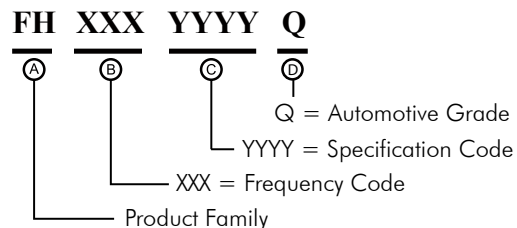
## Top view pin location



## Pin Functions:

Pin	Function
1	Xtal
2	Case
3	Xtal
4	Case

## Part Ordering Information:



Following the above format, SaRonix-eCera part numbers will be assigned upon confirmation of exact customer requirements.

### Frequency Range:

- 12.0000 MHz to 66.0000 MHz (Fundamental)

### Characteristics at 25°C ±3°C:

- Frequency Calibration Tolerance: ±10ppm to ±50ppm
- Load Capacitance: 7 to 32pF or Series Resonance
- Effective Series Resistance (ESR):
  - 12.0000MHz to 19.9999MHz: 140Ω max
  - 20.0000MHz to 29.9999MHz: 70Ω max
  - 30.0000MHz to 66.0000MHz: 50Ω max
- Drive Level: 10μW typ. 100μW max
- Shunt Capacitance: 5pF Max.

### Temperature Range:

- Operating: -20 to +70°C; -40 to +85°C; -40 to +125°C
- Storage: -55 to +125°C

### Temperature Stability:

- ±10ppm to ±50ppm (-20 to +70°C)
- ±15ppm to ±50ppm (-40 to +85°C)
- ±50ppm to ±70ppm (-40 to +125°C)

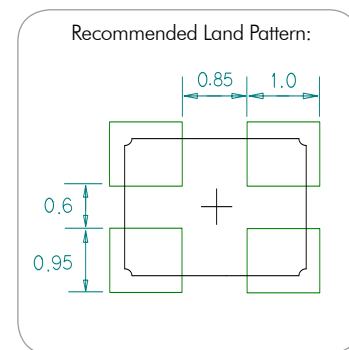
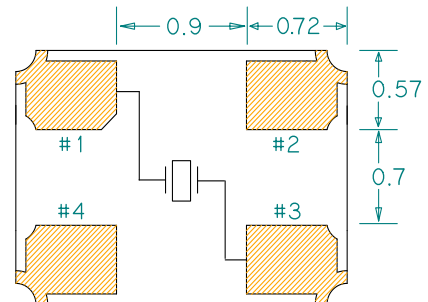
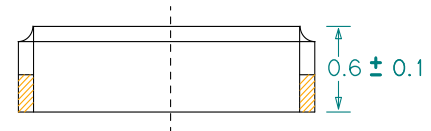
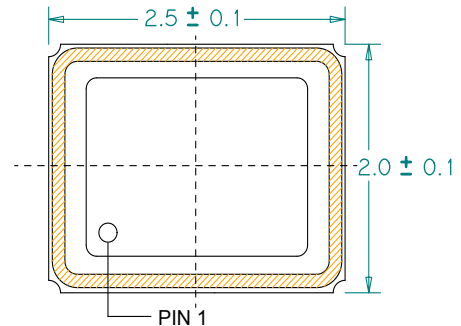
### Aging at 25°C, First Year:

- ±3ppm Max

### Reflow Temperature:

- 260°C Max, 10 seconds max

### Package: (Dimensions are in mm)



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