

# Quartz Crystal Ceramic SMD

**F8**


8.0 x 4.5mm Ceramic SMD

## Product Features

- Rugged AT-cut crystal construction
- Compact SMD package
- Available on tape & reel; 16mm tape, 1000 units per reel
- RoHS compliant

## Product Description

The 2-pad F8 Series glass seal devices incorporate a sub-miniature AT-cut strip crystal resonator housed in a 8.0 x 4.5mm ceramic package. These compact crystals are ideal for surface mounting in densely-populated PCB applications.

## Applications

Ideally suited for disc drives, PCMCIA, PCs and hand-held products.

## Frequency Range:

- 6.0000 MHz to 48.0000 MHz (Fundamental)
- 30.0000 MHz to 125.0000 MHz (3rd Overtone)

## Characteristics at 25°C ±2°C:

- Frequency Calibration Tolerance: ±10ppm, ±20ppm, or ±30ppm
- Load Capacitance: 8 to 32pF or Series Resonance
- Effective Series Resistance (ESR):
  - Fundamental: 20 to 110Ω max depending on frequency
  - 3rd Overtone: 50 to 80Ω max depending on frequency
- Drive Level: 10μW typ. (500μW max)
- Shunt Capacitance: 7pF max

## Temperature Range:

- Operating: -20 to +70°C or -40 to +85°C
- Storage: -40 to +85°C

## Temperature Stability:

- ±10ppm, ±20ppm, ±30ppm, or ±50ppm (-20 to +70°C)
- ±30ppm, or ±50ppm (-40 to +85°C)

## Aging at 25°C, First Year:

- ±3ppm Max

## Reflow Temperature:

- 260°C Max, 10 seconds Max

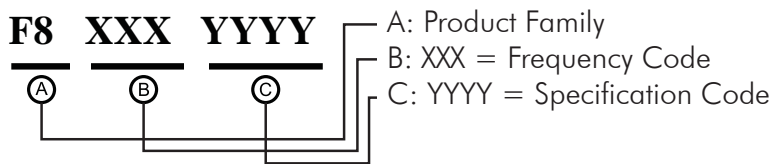
### Mechanical:

- Shock:  $\pm 5$ ppm max after 3 drops from 75cm onto a hard wooden board
- Solderability: JESD22-B102-D Method 2 (Preconditioning E)
- Vibration:  $\pm 5$ ppm max sine vibration 10~55Hz, sweep period 1-2 minutes, amplitude 1.5mm, 3 mutually perpendicular planes each 1 hour
- Solvent Resistance: MIL-STD-202, Method 215
- Resistance to Soldering Heat: J-STD-020C Table 5-2 Pb-free devices (3 cycles max)

### Environmental:

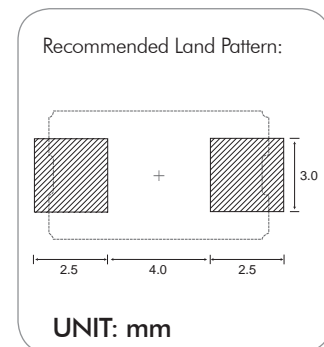
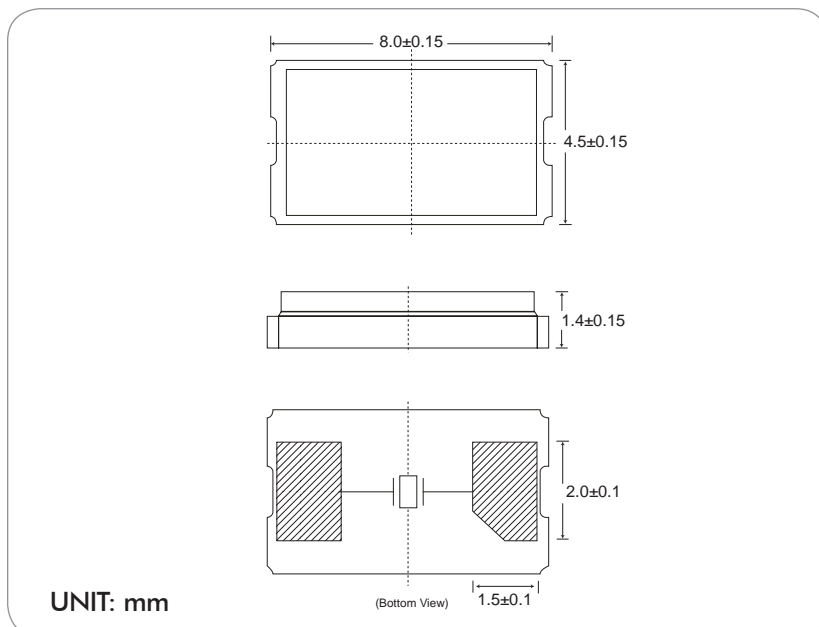
- Gross Test Leak: MIL-STD-883, Method 1014, Condition C
- Fine Test Leak: MIL-STD-883, Method 1014, Condition A2
- Thermal Shock: MIL-STD-883, Method 1011, Condition A
- Moisture Resistance: MIL-STD-883, Method 1004

### Part Ordering Information:



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

### Mechanical Drawings:



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