Quartz Crystal Ceramic SMD

F6 FX



F6 FX

6.0 x 3.5mm Ceramic SMD

Product Features

- Tight tolerance & stability
- Rugged construction and excellent mechanical shock resistance
- Extremely compact SMD package
- Available on tape & reel; 12mm tape, 1000 units per reel
- FX: Pb-free and RoHS/Green compliant
- F6: RoHS compliant

Product Description

The 2-pad F6 Series glass seal and 4-pad FX Series seam seal devices incorporate a sub-miniature AT-cut strip crystal resonator housed in a 6.0 x 3.5mm 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 electronic products

Frequency Range:

- 6.0000 MHz to 56.0000 MHz (Fundamental)
- 30.0000 MHz to 125.0000 MHz (3rd Overtone)

Characteristics at 25°C ±3°C:

- Frequency Calibration: ±10ppm, ±20ppm, or ±30ppm
- Load Capacitance: 8 to 32pF or Series Resonance
- Effective Series Resistance (ESR):

  Fundamental: 20Ω to 80Ω max depending on frequency

  3rd Overtone: 60Ω to 80Ω max depending on frequency
- Drive Level: 10μW typ. (100μW max)

Shunt Capacitance: 5pF max

Temperature Range:

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

Temperature Tolerance:

- ±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

F6/FX Series Quartz Crystal
Legacy NES6/NKS6 Series | 6.0 x 3.5mm

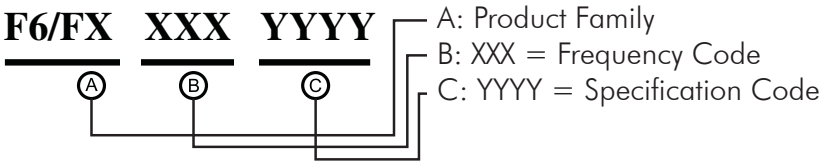
Mechanical:

- ±5ppm max after 3 drops from 75cm onto a hard wooden board
- Solderability: JESD22-B102-D Method 2 (Preconditioning E)
- Vibration: ±5ppm max sine vibration 10~55Hz, sweep period 1-2 minutes, amp. 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:

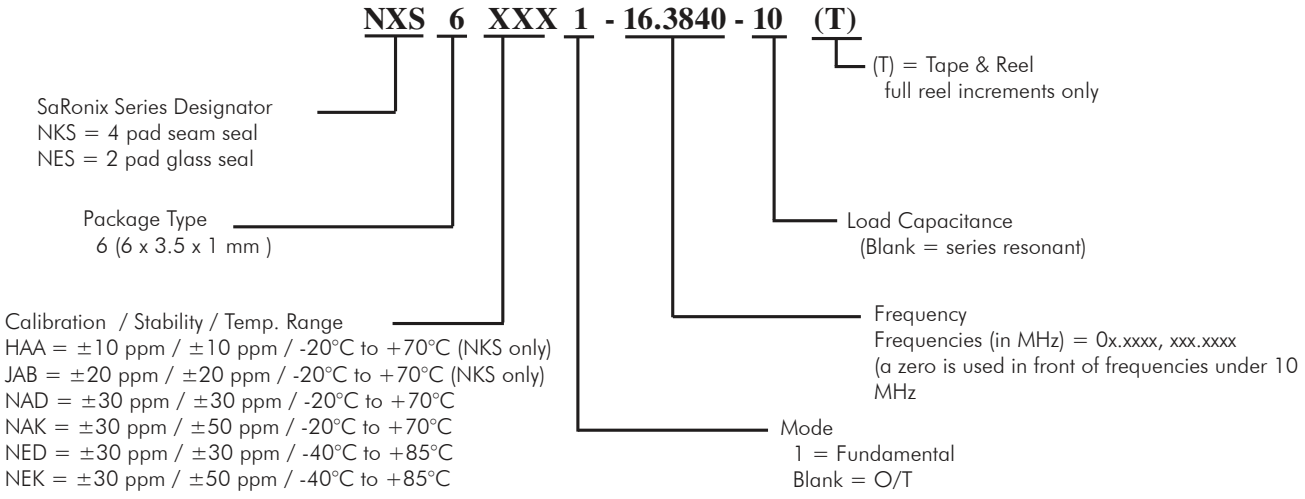
- Gross Test Leak: MIL-STD-883, Method 1014, Condition C
- Fine Test Leak: MIL-STD-883, Method 1014, Condition A2
- Thermal Shock: MIL-STD-883, Method 1011, Condition A
- Moisture Resistance: MIL-STD-883, Method 1004

Part Ordering Information:



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

Legacy Ordering Information - For Reference Only:

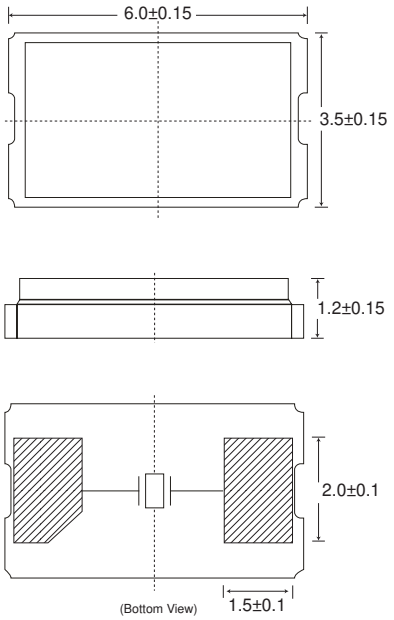


Part Number Example:

Spec: Freq 18.1234MHz, ±30ppm calib, ±30ppm stab, -20 to +70°C, 16pF, T&R = NKS5NAD1-18.1234-16(T)

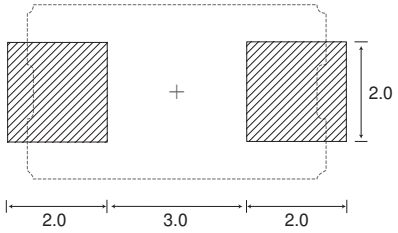
F6/FX Series Quartz Crystal
Legacy NES6/NKS6 Series | 6.0 x 3.5mm

Mechanical Drawings: F6 Series



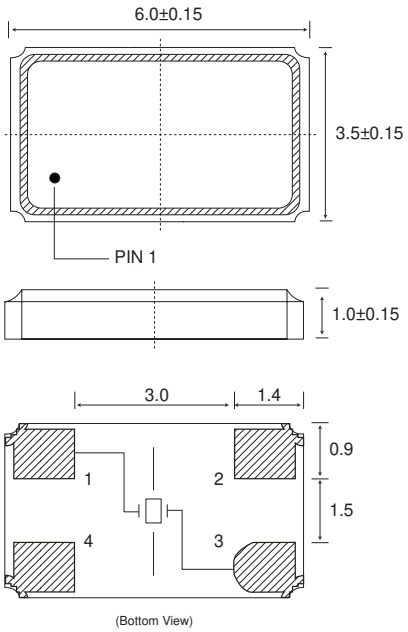
UNIT: mm

Recommended Land Pattern:



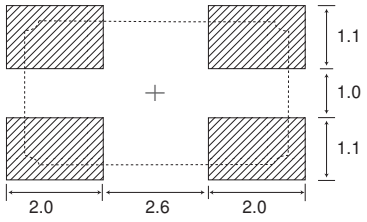
UNIT: mm

Mechanical Drawings: FX Series



UNIT: mm

Recommended Land Pattern:



UNIT: mm