

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

## **Quartz Crystal Ceramic SMD**





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 subminiature 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:  $\pm 10$  ppm,  $\pm 20$  ppm, or  $\pm 30$  ppm
- Load Capacitance: 8 to 32pF or Series Resonance
- Effective Series Resistance (ESR):
  - Fundamental:  $20\Omega$  to  $80\Omega$  max depending on frequency
  - 3rd Overtone:  $60\Omega$  to  $80\Omega$  max depending on frequency
- Drive Level:  $10\mu W$  typ. ( $100\mu W$  max)

Shunt Capacitance: 5pF max

#### **Temperature Range:**

- Operating: -20 to  $+70^{\circ}$ C or -40 to  $+85^{\circ}$ C
- Storage: -55 to  $+125^{\circ}C$

#### **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

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• www.saronix-ecera.com

# Quartz Crystal Ceramic SMD **F6 FX**

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

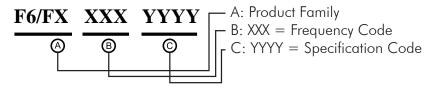
#### **Mechanical:**

- ±5ppm max after 3 drops from 75cm onto a hard wooden board
- •Solderability: JESD22-B102-D Method 2 (Preconditioning E)
- •Vibration:  $\pm$ 5ppm max sine vibration 10 $\sim$ 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:**

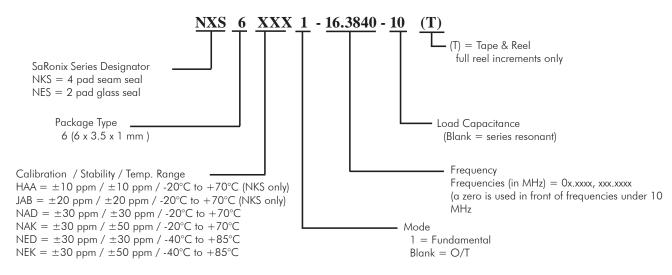
- Gross Test Leak: MIL-STD-883, Method 1014, Condition C
- Fine Test Leak: MIL-STD-883, Method 1014, Condition A2
- Thermal Shock: MIL-STD-883, Method 1011, Condition A
- Moisture Resistance: MIL-STD-883, Method 1004

#### **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)

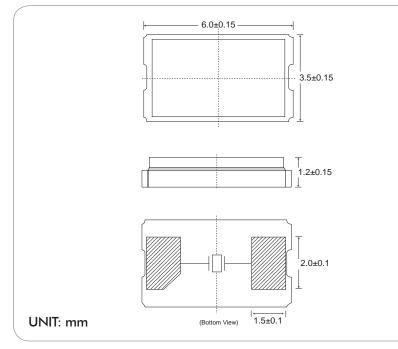
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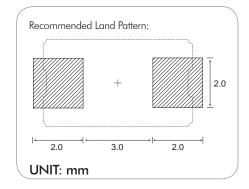


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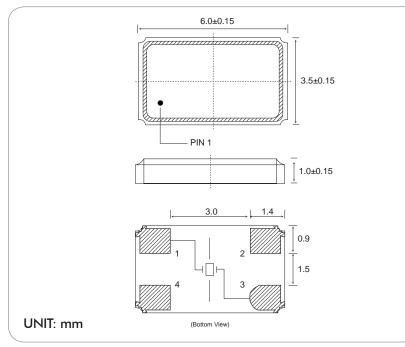
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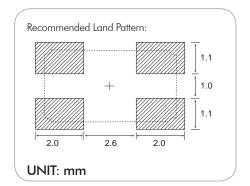
#### **Mechanical Drawings: F6 Series**





## **Mechanical Drawings: FX Series**





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