

# Miniature Quartz Crystal Ceramic SMD

F6 FX



#### Actual Size

## **Product Description**

The F6 2-pad and FX 4-pad Series incorporate a sub-miniature AT-cut strip crystal resonator housed in a 3.5x6 mm ceramic package. These compact crystals are ideal for surface mounting in densely-populated PCB applications.

#### **Product Features**

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

## **Typical Applications**

• Ideally suited for disc drives, PCMCIA, PCs and handheld electronic products

## **Common Frequencies**

Contact SaRonix for additional frequencies

38.8000 MHz,	62.5000 MHz
66.0000 MHz	66.6667 MHZ
75.0000 MHz	77.7600 MHz
100.0000 MHz	106.2500 MHz
125.0000 MHz	133.0000 MHz
150.0000 MHz	155.5200 MHz
156.2500 MHz	160.0000 MHz

### **Frequency Range:**

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

#### **Temperature Range:**

- $\bullet$  Operating: -20 to +70°C, -40 to +85°C
- Storage: -40 to  $+85^{\circ}$ C

#### **Temperature Tolerance:**

- $\pm 10$ ,  $\pm 20$ ,  $\pm 30$ ,  $\pm 50$ ppm, -20 to +70°C
- $\pm 30$ ,  $\pm 50$ ppm, -40 to +85°C

#### Characteristics at 25°C ±3°C:

- Frequency Calibration:  $\pm 10$ ,  $\pm 20$ ,  $\pm 30$
- Load Capacitance: 10 to 32pF or Series Resonance
- Effective Series Resistance:
- Fundamental:  $20\Omega$  to  $80\Omega$  depending on frequency
- 3rd Overtone:  $60\Omega$  to  $80\Omega$  depending on frequency
- Standard Drive Level: 10µW
- Shunt Capacitance: 5pF max

#### Aging at 25°C, First Year:

• ±3ppm Max.

#### Mechanical:

- ±5ppm 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  $10\sim 55$ Hz, 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

#### **Reflow Temperature:**

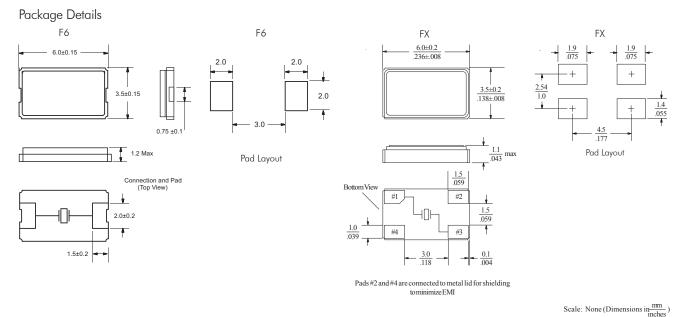
• 260°C Max, 10 sec max





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

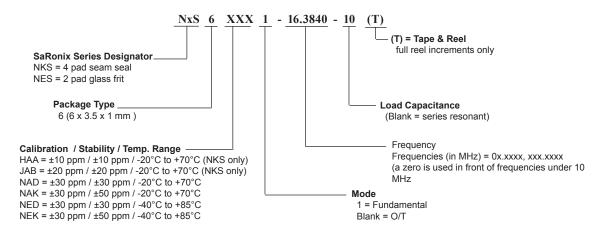
### **Mechanical Drawings: 6 x 3.5 Ceramic SMD**



#### **New Part Number Example**

Note: After July 1, 2007, a Saronix - eCera part number following the above format will be assigned upon confirmation of exact customer requirements.

#### **Legacy Ordering Information**



#### Part Number Example:

Spec: Freq 8.1234MHz, ±30ppm calib, ±30ppm stab, -20 to +70°C, 16pF, T&R = NK\$6NAD1-08.1234-16(T)

**PERICOM** 

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## **Diodes Incorporated:**

FX250004	8 F62000012	EX250006	F61430029	FX143001	3 FX1600002	F62700017	FX1200080	F62500011
F61430004	F62500049	F62500041	F62500043	FX1840027	FX2500011	FX1300012	FX2400019	FX1200065
FX2210007	F61200030	FX2500004	F61600002	FX1350032	FX1430025	FX2500005	FX1100015	FX6400001
FX1200060	FX25000682	Z F62500037	F64800023	F62500019	F62700004	FX1940008	F60800008	FX2700053
F62500007	FX1200075	FX1600052	F61600021	F62450006	F62500018	FX0800016	F61840010	FX2500059
FX1960009	F62500017	FX0800018	F61200018	FX1200001	FX4000023	F62450008	FX2500061	FX2000060
F62000018	FX2500007	FX1600020	FX0800005	FX2400029	FX1430027	FX2500026	FX2500047	F62700007
FX2710008	FX1000006	F62400007	FX1220002	F61430012	FX2000012	FX2000045	F61600010	FX1430004