

**High Reliability Crystal** 3.2 x 2.5mm

# Miniature Quartz Crystal Ceramic SMD



3.2 x 2.5mm Ceramic SMD

#### **Product Features**

- Rugged AT-cut crystal construction
- Miniature 3.2 x 2.5mm ceramic package
- Support high temperature up to 125°C
- Wide frequency range: 12~66MHz
- JIS-C0044 Drop Test compliant
- Available on tape & reel; 8mm tape, 3000 units per reel
- Pb-free and RoHS/Green compliant

## **Product Description**

The 4-pad XR32 Series seam seal devices are housed in a standard 3.2 x 2.5mm ceramic package. The devices are ideal for surface mounting in densely populated or small formfactor PCB applications.

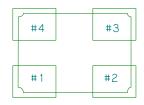
Designed and manufactured for high reliability, XR32 series meets the requirements of ultrasonic welding manufacturing process as well as the industry standard drop test. The series is ideal to provide accurate timing for applications that a high reliability is a must. The series supports operating temperature range of  $-40^{\circ}$ C up to  $+125^{\circ}$ C.

## **Applications**

- Medical Devices
- Wearable Devices



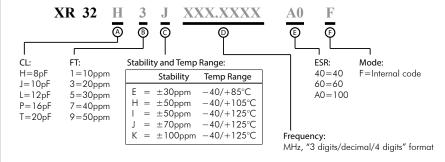
## **Top View Pin Location**



#### **Pin Functions:**

Pin	Function
1	Xtal
2	GND
3	Xtal
4	GND

## **Part Ordering Information:**



Please contact us for custom requirements for your specific application needs.

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### Frequency Range:\*

• 12 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):\*

12.0000~MHz to 19.9999~MHz :  $100\Omega~\text{max}$  $20.0000\,\text{MHz}$  to  $31.9999\,\text{MHz}$  :  $60\Omega$  max 32.0000 MHz to 66.0000 MHz :  $40\Omega$  max

- Drive Level:  $10\mu W$  typ.  $(100\mu W \text{ max})$
- Shunt Capacitance: 3pF Max

### **Temperature Range:\***

- Operating: -40 to +85°C or -40 to +105°Cor -40 to +125°C
- Storage: -55 to +125°C

### **Temperature Stability:\***

•  $\pm 30$ ppm to  $\pm 100$ ppm

#### Aging at 25°C, First Year:

• ±3ppm Max

#### **Centrifugal Force:**

• SAE J2657 (1500G)

#### **Reflow Temperature:**

• 260°C Max, 10 seconds Max

#### **Drop Test:**

• JIS-C0044

#### Mechanical:

• Shock: JESD22-B104 • Solderability: J-STD-002

• Vibration: JESD22-B103

• Resistance to Soldering Heat: : J-STD-020 (SMD)

#### **Environmental:**

• Gross Test Leak: JESD22-A109

• Fine Test Leak: MIL STD 883 M1014

• Moisture Resistance: JESD22-A101

• Insulation Resistance: 500 MΩ min (100 VDC)

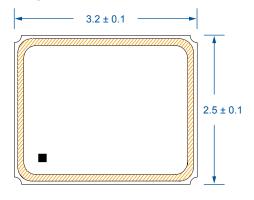
• Temperature Cycling: JESD22-A104

• High Temperature Exposure: JESD22-A103

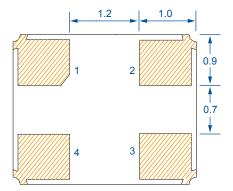
• High Temperature Operation Life: JESD22-A108

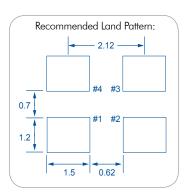
#### \*Note: See Part Ordering Information

#### **Package:** (Scale: none; dimensions are in mm)









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\_\_\_\_\_ 3.2 x 2.5mm

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