

ISSUE 6; March 2024

### Description

- 3.2 x 1.5mm SMD crystal in a ceramic package with a seam sealed metal lid, hermetically sealed.  
Suitable for real time clock applications.

### Frequency Parameters

- Frequency: 32.768kHz
- Frequency Tolerance:  $\pm 20.00\text{ppm}$
- Tolerance Condition: @ 25°C  $\pm 5^\circ\text{C}$
- Ageing:  $\pm 3\text{ppm}$  max in 1st year @ 25°C

### Electrical Parameters

- Load Capacitance (CL): 6.0pF to 12.5pF
- Shunt Capacitance (C0): 1.0pF typical
- Drive Level: 1.0 $\mu\text{W}$  max
- Load Capacitance: 12.5pF (std), other values are available such as 6pF, 7pF and 9pF

### Operating Temperature Ranges

- 40 to 85°C

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 100g dummy, 150cm drop (3 directions x 10 times) onto concrete
- Vibration: 1.5mm amplitude, 10Hz-60Hz with cycle time 2-3 minutes in 3 directions (X, Y and Z axis) each for 2 hours  
\*Measure after 2 hours left at room temperature

### Manufacturing Details

- RoHS Terminations: NiAu
- RoHS Reflow: 260°C max for 10s max

### Ordering Information

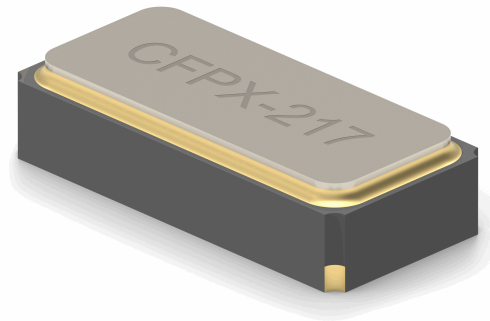
- Frequency\*  
Model\*  
Frequency Tolerance (@ 25°C)\*  
Load Capacitance\*  
(\*minimum required)
- Example  
32.7680kHz CFPX-217  
20/-/-12.5

### Compliance

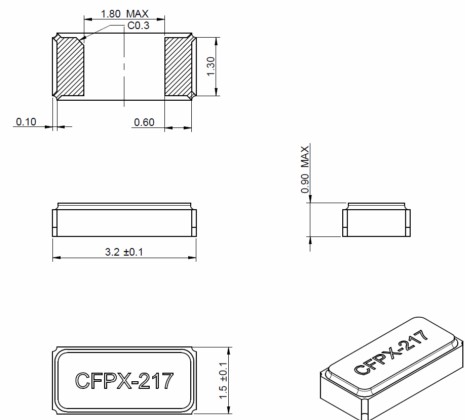
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

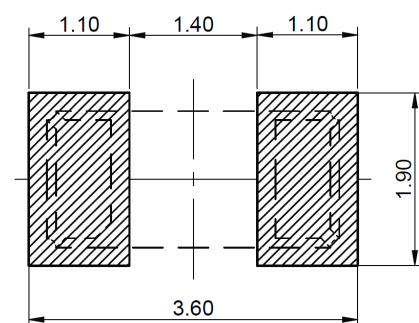
- Tape & reel in accordance with EIA-481  
Quantities below the standard reel size to be supplied on cut tape.  
Standard Reel Quantity: 3,000 Pieces



### Outline (mm)



### Recommended Solder Pad Layout



### Sales Office Contact Details:

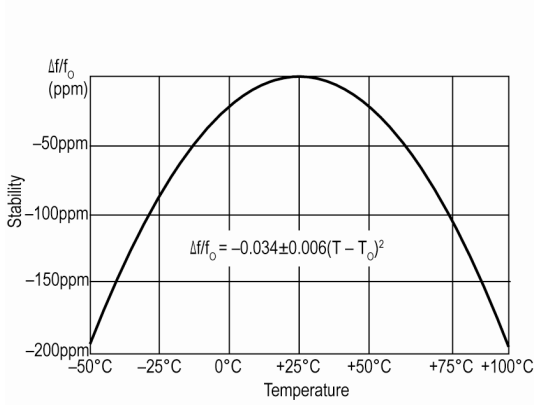
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**Typical Frequency Stability Characteristics**



**Electrical Specification - maximum limiting values**

Frequency	Temperature Range	Stability	Over Tone Order	ESR
	°C	ppm		Ω
32.768000kHz	-40 to 85	-	Fundamental	70,000

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