

## CFPX-181 CRYSTALS

ISSUE 7; 1 NOVEMBER 2010 – RoHS 2002/95/EC

### Description

- 2.5 x 2mm SMD crystal
- Ceramic package with a seam sealed metal lid, hermetically sealed
- Offers lower ageing than the standard CFPX-218 package
- Please see our CFPX-218 for standard 2.5 x 2mm crystal
- Stock parts listed at the beginning of this chapter

### General Specifications

- Load Capacitance (CL): 10pF to 30pF or Series
- Drive Level: 100µW max
- Ageing: ±1ppm max per year at 25°C
- Shunt Capacitance (C<sub>0</sub>): 5pF max

### Standard Frequency Tolerance and Stability

- ±10ppm to ±100ppm

### Operating Temperature Range

- 10 to 60°C

### Storage Temperature Range

- 40 to 90°C

### Environmental

- Drop: 75cm drop (3 times) onto hard wooden board
- Vibration: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane

### Packaging

- Loose in bulk pack, 100pcs per bag
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

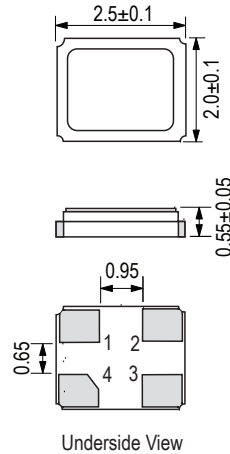
### Ordering Information (\*minimum required)

- Frequency\*
- Model\*
- Frequency Tolerance (@25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone

### Example

- 20.0MHz CFPX-181  
50/50/-10 to 60C/10 FUND

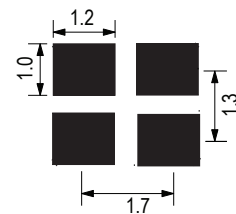
### Outline (mm)



### Pad Connections

- Crystal
- GND & Lid
- Crystal
- GND & Lid

### Solder Pad Layout





**Electrical Specifications – maximum limiting values**

Frequency Range	Frequency Tolerance @25°C ±2°C	Operating Temperature Range	Frequency Stability Available Over Operating Temperature Range		ESR Max	Vibration Mode
			Minimum	Maximum		
16.0 to <20.0MHz	±10ppm to ±50ppm	-10 to 60°C	±10ppm	±100ppm	100Ω	Fundamental AT cut
20.0 to <30.0MHz					80Ω	
30.0 to <40.0MHz					60Ω	
40.0 to 50.0MHz					50Ω	
Note: For other frequency / specification combinations, please contact our sales offices						

