

ISSUE 4; August 2016

Description

- Standard 2.5 x 2mm SMD crystal in a hermetically sealed ceramic package with a seam sealed metal lid. Please see our CFPX-181 for a low ageing version.

Frequency Parameters

- Frequency: 12.0MHz to 50.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL): 8.0pF to 30.0pF
- Shunt Capacitance (C0): 5pF max
- Drive Level: 100µW max

Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 10 to 70°C
- 40 to 85°C

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 100cm drop (3 times) onto hard wooden board.
- Vibration: MIL-STD-883F, Method 2007.3: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes (total 4hrs).

Manufacturing Details

- Maximum Process Temperature: 260°C (10secs max)

Ordering Information

- Frequency*
- Model*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example
20.0MHz CFPX-218
20/20/-40 to 85C/16 FUND

Compliance

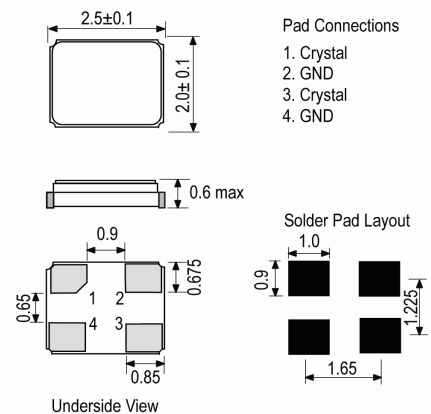
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel: Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Cutt: In tape, cut from a reel
Pack Size: 1



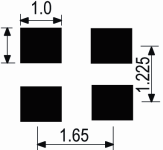
Outline (mm)



Pad Connections

1. Crystal
2. GND
3. Crystal
4. GND

Solder Pad Layout



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
12.0MHz	15.999999MHz	-10 to 70 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	300
16.0MHz	29.999999MHz	-10 to 70 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	100
30.0MHz	50.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	70

*Stability Maximum values ±100ppm

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