

ISSUE 5; March 2024

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 60.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 15.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Load Capacitance (CL): 8.0pF to 47.0pF
- Shunt Capacitance (C0): 3pF max
- Drive Level: 100µW max

Operating Temperature Ranges

- 20 to 70°C
- 40 to 85°C

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock Test (MIL-STD-202 Method 213): Half Sine shock pulse with peak acceleration 500g. Pulse duration: 0.3ms.
- Vibration (MIL-STD-202 Method 204): Frequency: 10 - 55 Hz. Amplitude: 0.7 - 0.9 mm pk-pk. Sweep: 1 minute. Duration: 2 hours in each of 3 mutually perpendicular direction.

Manufacturing Details

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

Ordering Information

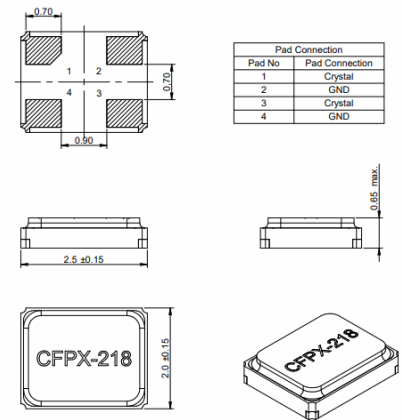
- Frequency*
Model*
Frequency Tolerance (@ 25°C)*
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Load Capacitance*
Overtone
(*minimum required)
- Example
20.0MHz CFPX-218
20/20/-40 to 85C/16 FUND

Compliance

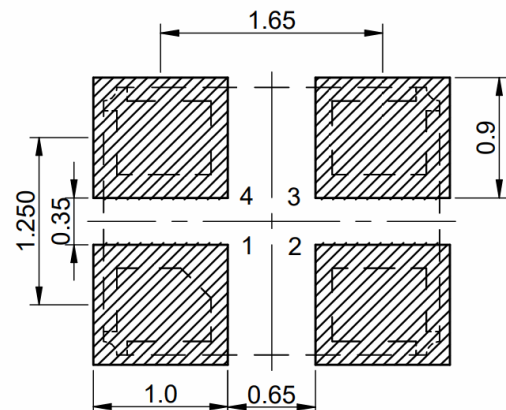
- RoHS Status (2015/863/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



Recommended Solder Pad Layout



Sales Office Contact Details:

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Packaging Details

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

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
12.0MHz	15.999999MHz	-20 to 70 -40 to 85	±15 ±20	Fundamental	180 180
16.0MHz	19.999999MHz	-20 to 70 -40 to 85	±15 ±20	Fundamental	150 150
20.0MHz	29.999999MHz	-20 to 70 -40 to 85	±15 ±20	Fundamental	100 100
30.0MHz	60.0MHz	-20 to 70 -40 to 85	±15 ±20	Fundamental	60 60

*Stability Maximum values ±100ppm

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