

ISSUE 9; July 2016

### Description

- Standard 5x3.2mm SMD crystal with four pads.  
Ceramic package with a seam sealed metal lid, hermetically sealed.  
Please see our CFPX-225 for a two pad alternative.

### Frequency Parameters

- Frequency: 8.0MHz to 133.0MHz
- 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  $\pm 50.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Load Capacitance (CL): 10.0pF to 30.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max

### Operating Temperature Ranges

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

### Environmental Parameters

- Shock: 1500G, 0.5ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes, 4 cycles
- Storage Temperature Range: -55 to 125°C

### Ordering Information

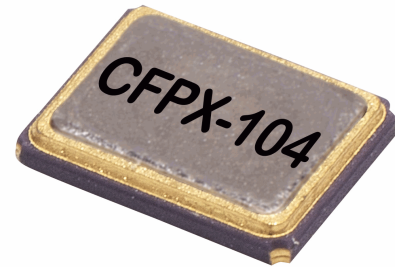
- Frequency\*  
Model\*  
Frequency Tolerance (@ 25°C)\*  
Frequency Stability (over operating temperature range)\*  
Operating Temperature Range\*  
Load Capacitance\*  
Overtone\*  
(\*minimum required)
- Example  
10.0MHz CFPX-104  
50/50/-40 to 85C/10 FUND

### Compliance

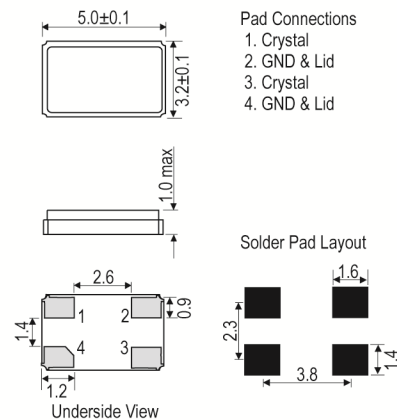
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: Bulk: Loose in bulk pack  
Pack Size: 100
- 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)



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Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
8.0MHz	10.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	150
10.000001MHz	12.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	90
12.000001MHz	15.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	70
15.000001MHz	20.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	50
20.000001MHz	30.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	40
30.000001MHz	40.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	30
40.0MHz	80.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	3rd Overtone	100
40.000001MHz	52.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	Fundamental	20
80.000001MHz	133.0MHz	-10 to 60 -20 to 70 -40 to 85	±10 ±10 ±20	3rd Overtone	80

\*Stability Maximum values ±50ppm

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