

**Description**

- Standard 6 x 3.5mm crystal
- A 2 pad  
Variant A is a 2 pad version
- Model CFPX-228-A
- Model Issue number 2

**Frequency Parameters**

- Frequency 12.0MHz
- Frequency Tolerance  $\pm 20.00$ ppm
- Frequency Stability  $\pm 30.00$ ppm
- Operating Temperature Range  $-40.00$  to  $85.00^{\circ}\text{C}$
- Overtone Order Fundamental
- Ageing  $\pm 3$ ppm max per year @  $25^{\circ}\text{C}$

**Electrical Parameters**

- Load Capacitance (CL) 18.00pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 100 $\mu$ W max
- ESR 80.00 $\Omega$  max

**Environmental Parameters**

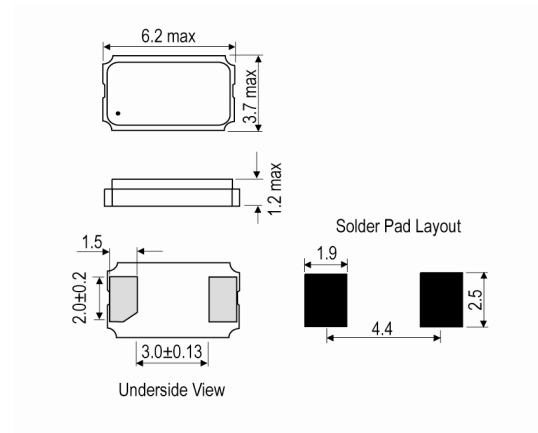
- Storage Temperature Range:  $-55$  to  $125^{\circ}\text{C}$
- Drop Test: Unit dropped from height of 100cm onto hard wooden plate (>30mm thickness), three times. JIS-C-0044
- Vibration: MIL-STD-883F: 2007.3 Frequency range 20 to 2000Hz, peak amplitude 1.52mm, peak acceleration 20G, 20min/axis X, Y & Z, total test time 4 hrs

**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
- *Alternative packing option available*

**Outline (mm)**

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