

ISSUE 2; March 2016

### Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 and with TS16949 release.
- -A 2 pad
- -B 4 pad

### Frequency Parameters

- Frequency 10.0MHz to 70.0MHz
- Frequency Tolerance  $\pm 10.00\text{ppm}$  to  $\pm 50.00\text{ppm}$  @ 25°C
- Tolerance Condition @ 25°C
- Frequency Stability  $\pm 15.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Load Capacitance (CL) 8.0pF to 75.0pF
- Shunt Capacitance (C0) 7pF max
- Drive Level 50 $\mu$ W standard

### Operating Temperature Ranges

- -40 to 85°C
- -40 to 125°C

### Environmental Parameters

- Storage Temperature Range: -40 to 150°C
- Qualified to AEC-Q200

### Ordering Information

- Frequency\*
- Model\*
- Variant\*
- Frequency Tolerance (@ 25°C)\*
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Load Capacitance\*
- Overtone\*
- (\*minimum required)
- Example  
10.0MHz IQXC-228 AUTO - B  
50/100/-40 to 125C/8 FUND

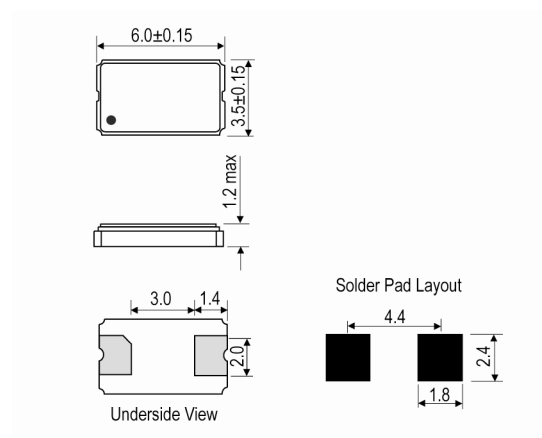
### Compliance

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

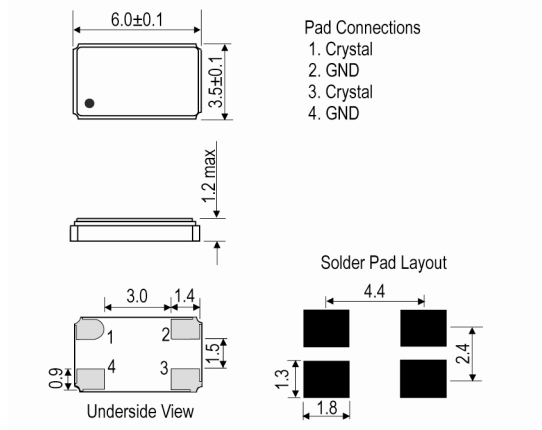
### Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Bulk Loose in bulk pack  
Pack Size: 100

### Outline (mm) -A = 2 pad



### Outline (mm) -B = 4 pad



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**Electrical Specification - maximum limiting values**

| Frequency Min | Frequency Max | Temperature Range       | Stability (Min) | Over Tone Order | ESR |
|---------------|---------------|-------------------------|-----------------|-----------------|-----|
|               |               | °C                      | ppm             |                 | Ω   |
| 10.0MHz       | 11.0MHz       | -40 to 85<br>-40 to 125 | ±15<br>±50      | Fundamental     | 80  |
| 11.000001MHz  | 12.0MHz       | -40 to 85<br>-40 to 125 | ±15<br>±50      | Fundamental     | 50  |
| 12.000001MHz  | 40.0MHz       | -40 to 85<br>-40 to 125 | ±15<br>±50      | Fundamental     | 40  |
| 40.0MHz       | 70.0MHz       | -40 to 85<br>-40 to 125 | ±15<br>±50      | 3rd Overtone    | 70  |

\*Stability Maximum values ±100ppm

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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