


**Description**

- Voltage controlled crystal oscillator in a ceramic package with a hermetically sealed metal lid
- Model IQXV-52
- Model Issue number 1

**Frequency Parameters**

- Frequency 38.880MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing (@  $25^\circ\text{C}$ ):  $\pm 3\text{ppm max}$

**Electrical Parameters**

- Supply Voltage  $2.5\text{V} \pm 5\%$
- Current Draw  $15.00\text{mA}$

**Frequency Adjustment**

- Pulling  $\pm 100\text{ppm min}$
- Control Voltage  $1.25\text{V} \pm 1.05\text{V}$
- Input Impedance  $2\text{M}\Omega \text{ min}$
- Linearity:  $\pm 10\% \text{ max}$

**Output Details**

- Output Compatibility HCMOS
- Drive Capability  $15\text{pF max}$
- Rise and Fall Time  $8.0\text{ns max}$
- Duty Cycle  $45/55\%$
- Start Up Time:  $10\text{ms max}$
- Start Up Time:  $10\text{ms max}$
- Start Up Time:  $10\text{ms max}$

**Output Control**

- Standby Operation:  
Logic '1' ( $>70\% V_s$ ) to pad 2 enables oscillator output  
Logic '0' ( $<30\% V_s$ ) to pad 2 disables oscillator output: when disabled the oscillator output goes to the high impedance state  
No connection pad 2 enables oscillator output

**Output Levels**

- VoH:  $>90\% \text{ of } V_s$
- VoL:  $<10\% \text{ of } V_s$

**Noise Parameters**

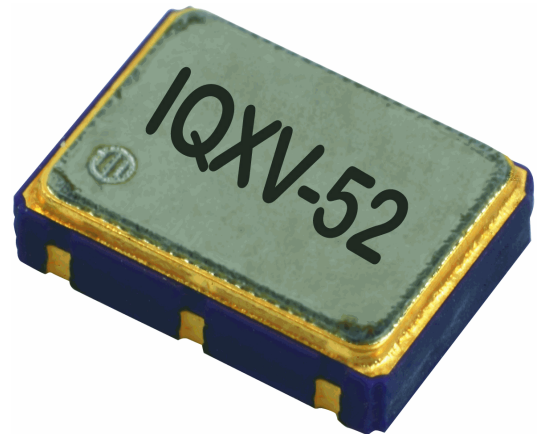
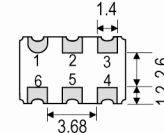
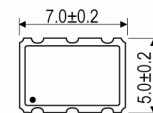
- Period Jitter (pk-pk):  $100\text{ps max}$
- Period Jitter (one sigma):  $25\text{ps max}$

**Environmental Parameters**

- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Drop:  $1.2\text{m drop (3 times)}$  onto a hard surface
- Vibration:  $1.5\text{mm amplitude, } 10\text{-}55\text{-}10\text{Hz, full sine wave, } 2\text{mins in 3 mutually perpendicular planes, duration 2hrs in each plane}$

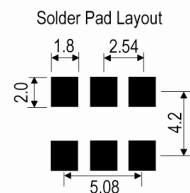
**Compliance**

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


**Outline (mm)**


Underside View

Pad Connections  
 1. Voltage Control  
 2. Standby Operation  
 3. GND  
 4. Output  
 5. N/C  
 6. +Vs


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**Packaging Details**

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- *Alternative packing option available*

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