

**Customer Part:**

**Description**

- LVPECL output crystal oscillator using a high frequency fundamental crystal to give very low jitter. Hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-623
- Model Issue number 2

**Frequency Parameters**

- Frequency 125.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $105.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year @  $25^\circ\text{C}$

**Electrical Parameters**

- Supply Voltage  $2.5\text{V} \pm 5\%$
- Current Draw  $50.000\text{mA}$

**Output Details**

- Output Compatibility LVPECL
- Rise and Fall Time  $0.5\text{ns}$  max
- Duty Cycle 45/55%
- Output Voltage Levels:  
Output Low (VOL):  $1.095\text{V}$  max  
Output High (VOH):  $1.475\text{V}$  min

**Output Control**

- Standby Operation:  
Logic '1' (70%  $V_s$  min) to pad 1 enables oscillator output.  
Logic '0' (30%  $V_s$  max) to pad 1 disables oscillator output.  
No connection to pad 1 enables oscillator output due to internal pull-up resistor.
- Standby Current:  $10\mu\text{A}$  max
- Start-up Time:  $10\text{ms}$  max

**Noise Parameters**

- Phase Jitter (12kHz to 20MHz):  $300\text{fs}$  rms max
- Phase Jitter (12kHz to 20MHz):  
@100MHz:  $129\text{fs}$  rms typ  
@125MHz:  $101\text{fs}$  rms typ  
@156.25MHz:  $79\text{fs}$  rms typ

**Environmental Parameters**

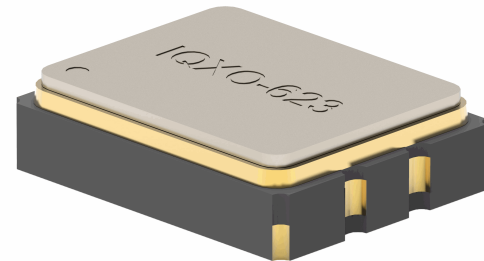
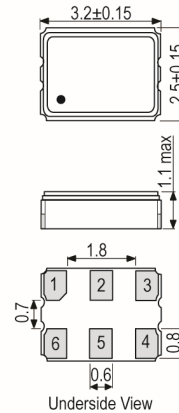
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock:  $1500\text{G}$ ,  $0.5\text{ms}$ , 3 times for each surface, total 18 times.
- Vibration: Freq. range:  $20\sim 2000\text{Hz}$ , peak to peak amplitude:  $1.52\text{mm}$ , peak acceleration:  $20\text{G}$  ( $196\text{m/s}^2$ ), 3 direction(X, Y,Z), each cycle:  $20\text{min}$ , 4 cycles for each direction.

**Manufacturing Details**

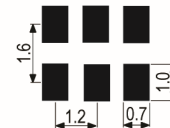
- RoHS Terminations Au over Ni
- RoHS Reflow Temp  $260^\circ\text{C}$  max for 10sec max

**Compliance**

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


**Outline (mm)**

**Pad Connections**

1. Standby Operation
2. N/C
3. GND
4. Output +
5. Output -
6.  $+V_s$

**Solder Pad Layout**

**Sales Office Contact Details:**

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 Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)



**Customer Part:**

**Packaging Details**

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

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