

Customer Part:

Description

- LVDS output crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-618-25
- Model Issue number 5

Frequency Parameters

- Frequency 100.0MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 105.00°C
- Ageing $\pm 3\text{ppm}$ max per year at 25°C

Electrical Parameters

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

Output Details

- Output Compatibility LVDS
- Drive Capability 100Ω
- Rise & Fall Time (20 - 80%) 0.5ns max
- Duty Cycle 45/55%
- Differential Output Voltage (VoD): 0.247V min, 0.33V typ, 0.454V max
- Offset Voltage (VoS): 1.125V min, 1.250V typ, 1.375V max.
- Output Voltage Levels:
Output Low (VoL): 0.9V min
Output High (VoH): 1.6V max

Output Control

- Standby Operation:
Logic '1' ($\geq 70\%$ Vs) to pad 1 enables oscillator output.
Logic '0' ($\leq 30\%$ Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
- Start-Up Time: 10ms max
- Standby Current: $10\mu\text{A}$ max

Noise Parameters

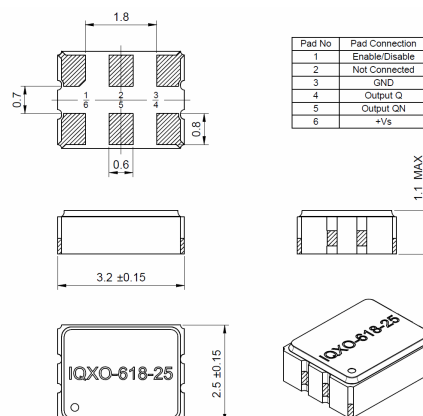
- Phase Jitter (12kHz to 20MHz): 300fs rms max
- Phase Jitter (12kHz to 20MHz):
@100MHz: 155fs rms typ
@125MHz: 119fs rms typ
@156.25MHz: 74fs rms typ

Environmental Parameters

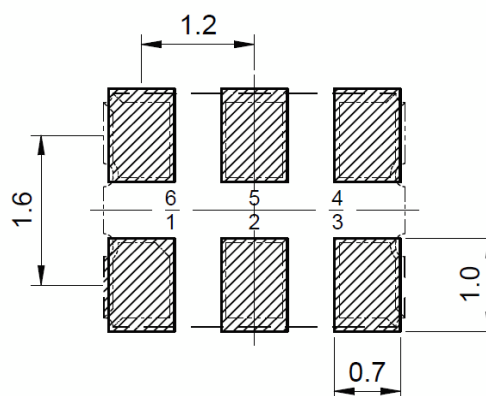
- Storage Temperature Range: -55 to 125°C
- Drop Test (JIS-C0044): The specimen is measured for frequency before the test. It is then dropped from a height of 100cm min as a free fall object onto a hard wooden plate of thickness 30mm min.
- Vibration (MIL-STD-883F : 2007.3): The specimen is measured for frequency before the test. Test in X, Y and Z axes for the vibration test. Frequency range: $20\sim 2000\text{Hz}$, peak to peak amplitude: 1.52mm , peak acceleration: 20g , sweep time: 20 minute/axis, pendicular total test time: 4 hours.



Outline (mm)



Recommended Solder Pad Layout



Sales Office Contact Details:

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Customer Part:

- RoHS Terminations
- RoHS Reflow Temp 260°C max for 10s max

Compliance

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

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on cut tape.

Standard Pack Quantity: 3,000

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