

ISSUE 4; April 2022

Description

- Standard 1.6 x 1.2mm SMD crystal in a hermetically sealed ceramic package with a sealed metal lid

Frequency Parameters

- Frequency: 24.0MHz to 80.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 10.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C
- Developed frequencies: 24.0MHz, 26.0MHz, 27.0MHz, 27.120MHz, 32.0MHz, 36.0MHz, 37.40MHz, 38.40MHz, 40.0MHz, 48.0MHz

Crystals have been developed at the above frequencies and with the following specification -

Tolerance: $\pm 10\text{ppm}$

Stability:

$\pm 15\text{ppm}$ over -20 to 70°C

$\pm 30\text{ppm}$ over -40 to 85°C

For alternative frequencies and specifications please contact an IQD Sales Office

Electrical Parameters

- Load Capacitance (CL): 10.0pF to 30.0pF
- Shunt Capacitance (C0): 7pF max
- Drive Level: 100µW max
- Note: ESR values for reference only - the final specification shall be confirmed for each frequency after sample production

Operating Temperature Ranges

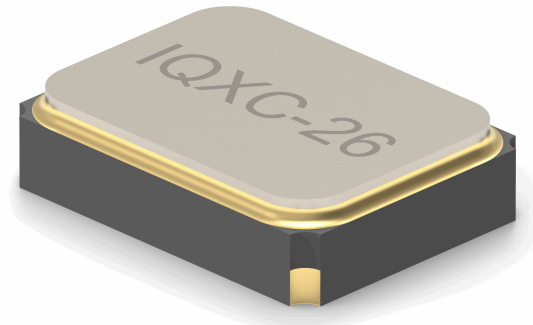
- 0 to 50°C
- 10 to 60°C
- 20 to 70°C
- 40 to 85°C

Environmental Parameters

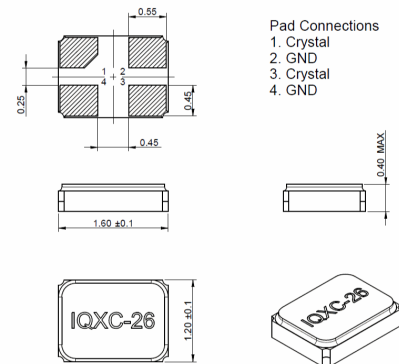
- Storage Temperature Range: -40 to 85°C
- Shock: IEC 60068-2-27: 1000G, 1ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)

Ordering Information

- Frequency*
- Model*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example
- 32.0MHz IQXC-26
- 30/30/-40 to 85C/16 FUND

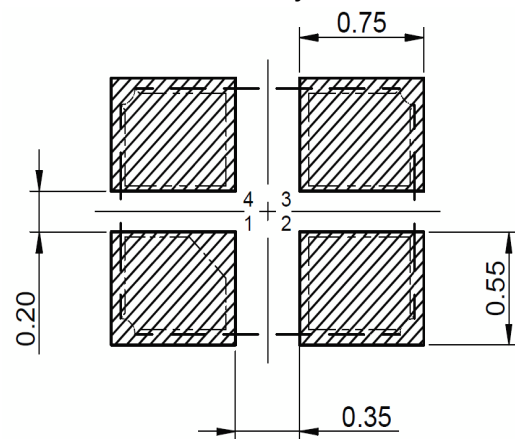


Outline (mm)



NOTE: The pad style on the base of the device may differ slightly from the drawing. The chamfer may appear on pad 1 or 4. This causes no change to the electrical performance of the device.

Recommended Solder Pad Layout



Sales Office Contact Details:

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Compliance

- RoHS Status (2015/863/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: 3,000
- Pack Style: Cutt In tape, cut from a reel
 Pack Size: 100

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability Min*	Over Tone Order	ESR
		°C	ppm		Ω
24.0MHz	30.0MHz	0 to 50	±10	Fundamental	200
		-10 to 60	±10		200
		-20 to 70	±20		200
		-40 to 85	±30		200
30.000001MHz	80.0MHz	0 to 50	±10	Fundamental	100
		-10 to 60	±10		100
		-20 to 70	±20		100
		-40 to 85	±30		100

*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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