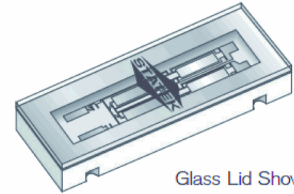


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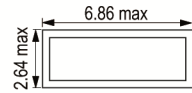
Description

- The CX3H quartz crystals are leadless devices designed for surface mounting on printed circuit boards or hybrid substrates. These miniature crystals are intended to be used in Series oscillators. They are hermetically sealed in a rugged, miniature ceramic package. They are manufactured using the Statek developed photolithographic process and were designed utilising the experience acquired by producing millions of crystals for industrial, commercial, military and medical applications.
- -C SM1 SM1 (Gold Plated, RoHS Compliant, Ceramic Lid)
- -C SM4 SM4 (Solder Plated, RoHS Compliant, Ceramic Lid)
- -C SM5 SM5 (Solder Dipped, RoHS Compliant, Ceramic Lid)
- -SM1 SM1 (Gold Plated, RoHS Compliant, Glass Lid)
- -SM4 SM4 (Solder Plated, RoHS Compliant, Glass Lid)
- -SM5 SM5 (Solder Dipped, RoHS Compliant, Glass Lid)
- FEATURES:
 - Miniature tuning fork design
 - High shock resistance
 - Low ageing
 - Designed for low power applications
 - Compatible with hybrid or PC board packaging
 - Full military testing available
- Please note that all data is only valid at 25°C unless otherwise stated.

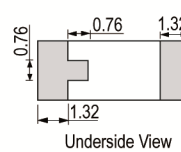
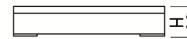


Glass Lid Shown

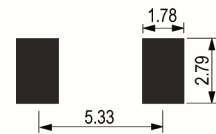
Outline (mm) -SM1 = SM1 (Gold Plated, RoHS Compliant, Glass Lid)



	Height (H) =	
	Glass Lid	Ceramic Lid
SM1	1.35	1.70
SM2	1.40	1.75
SM3	1.47	1.83
SM4	1.40	1.75
SM5	1.47	1.83



Solder Pad Layout



Frequency Parameters

- Frequency 18.0kHz to 600.0kHz
- Frequency Tolerance ±30.00ppm to ±5,000.00ppm
- Tolerance Condition @ 25°C
- Ageing ±5ppm max in the 1st year @ 25°C
- Temperature Coefficient (k): -0.035ppm/°C²
- Note: Frequency f at temperature T is related to frequency fo at turning point temperature To by: $(f-f_0)/f_0 = k(T-T_0)^2$

Electrical Parameters

- Shunt Capacitance (C0) 1.8pF max
- Drive Level: 18-24.9kHz 0.5µW max, 25-600kHz 1.0µW max

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C
- -55 to 125°C

Environmental Parameters

- Shock: 1500G, 0.3ms, 1/2 sine
- Vibration: 10G rms, 20-2000Hz random
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

- Maximum Process Temperature: 260°C for 20sec max

Sales Office Contact Details:

UK: +44 (0)1460 270200

France: 0800 901 383

Email: info@iqdfrequencyproducts.com

Germany: 0800 1808 443

USA: +1.760.318.2824

Web: www.iqdfrequencyproducts.com

Ordering Information

- Frequency*
Model*
Lid Variant*
Termination Variant*
Frequency Tolerance (@ 25°C)*
Operating Temperature Range*
Load Capacitance
(*minimum required)
- Lid Variants:
Blank = Glass
C = Ceramic
- Termination Variants:
SM1 = Gold Plated
SM4 = Solder Plated
SM5 = Solder Dipped
Note: non-RoHS compliant terminations are available - please contact an IQD Sales Office
- Example
100.0kHz CX3H-C SM1
100/-/-40 to 85C/SR FUND

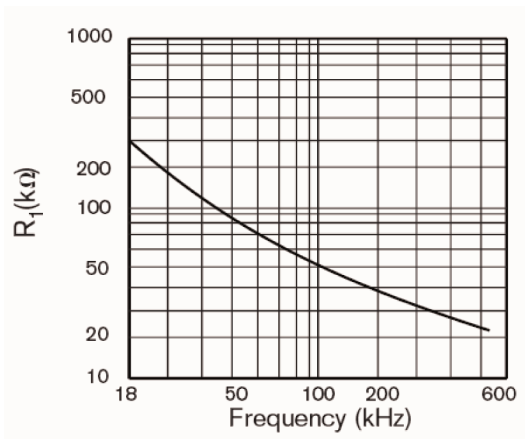
Compliance

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

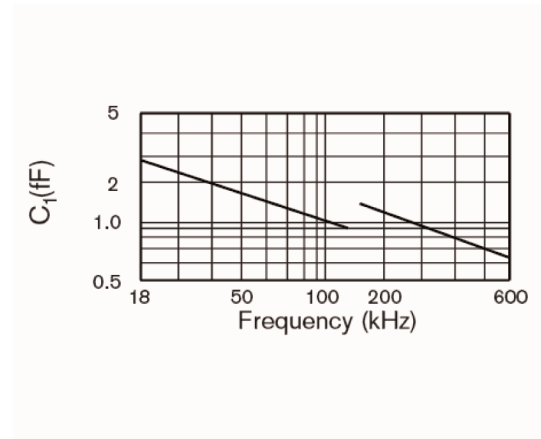
Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Tray Tray
Pack Size: 1

CX3H typical Motional Resistance



CX3H typical Motional Capacitance



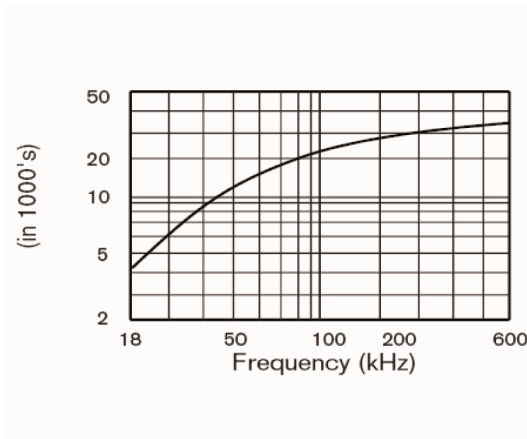
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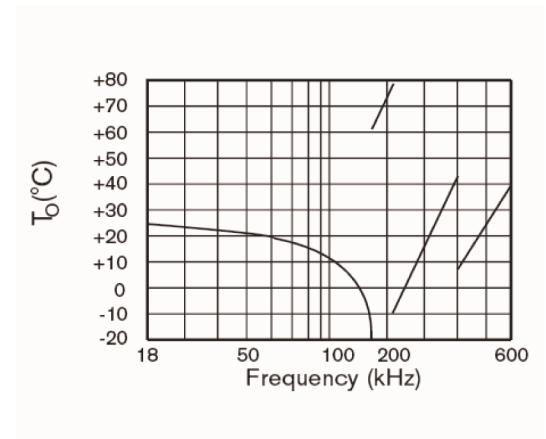
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Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com

CX3H typical Quality Factor



CX3H typical Turning Point Temperature



Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Over Tone Order	ESR
		°C	ppm		Ω
18.000kHz	600.0kHz	-10 to 70		Fundamental	-
		-40 to 85			-
		-55 to 125			-

*Stability Maximum values ±0ppm

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

[Click to view latest version on our website.](#)

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