

CX-1-SM Crystals 10.0kHz to 2.10MHz

ISSUE 6; 16 SEPT 2008

Delivery Options

- Please contact our sales office for current leadtimes

Description

- Statek's CX-1, -1V, -1H range of SM quartz crystals are designed for surface mounting on printed circuit boards or hybrid substrates. CX-1V-SM models are for use in Pierce oscillators. CX-1H-SM models are for use in series oscillators and CX-1-SM are length extensional mode resonators

Holder Style

- CX-1-SM: hermetically sealed ceramic package

Terminations

- SM1 - gold plated (lead free)
- SM2 - nickel solder plated
- SM3 - nickel solder plated, solder dipped
- SM4 - solder plated (lead free)
- SM5 - solder dipped (lead free)

RoHS
2002/95/EC

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Methods of Attachment

- Vapor phase, infrared or silver epoxy

General Specifications

- Load Capacitance (C_L) CX-1V-SM type:
 - 11pF (10.0 to < 16.0kHz)
 - 10pF (16.0 to < 25.0kHz)
 - 9pF (25.0 to < 55.0kHz)
 - 8pF (55.0 to < 100.0kHz)
 - 5pF (100.0 to < 180.0kHz)
 - 4pF (180.0 to < 600.0kHz)
- CX-1H-SM type is calibrated at Series Resonance
- Load Capacitance (C_L) CX-1-SM type:
 - 7pF (530.0kHz to 2.10MHz)
 Other values available upon request
- Static Capacitance (C_0): 1.0pF to 2.0pF
- Drive Level CX-1V-SM type:
 - 0.5μW max. (10.0 to < 25.0kHz)
 - 1.0μW max. (25.0 to < 614.40kHz)
- Drive Level CX-1-SM type:
 - 3.0μW max. (530.0kHz to 2.10MHz)
- Drive Level CX-1H-SM type:
 - 1.5μW max. (10.0 to < 25.0kHz)
 - 3.0μW max. (25.0 to < 614.40kHz)
- Ageing: ±5ppm maximum first year

Operating Temperature Ranges

- -10 to 70°C = C
- -40 to 85°C = I
- -55 to 125°C = M

Storage Temperature Range

- -55 to 125°C

Environmental Specification

- Shock: 1000g, 1.0ms $\frac{1}{2}$ sine (CX-1V/H type)
- Vibration: 20g, 10 to 2000Hz (CX-1V/H type)
- Shock: 750g, 0.3ms $\frac{1}{2}$ sine (CX-1 type)
- Vibration: 10g, 20 to 1000Hz (CX-1 type)

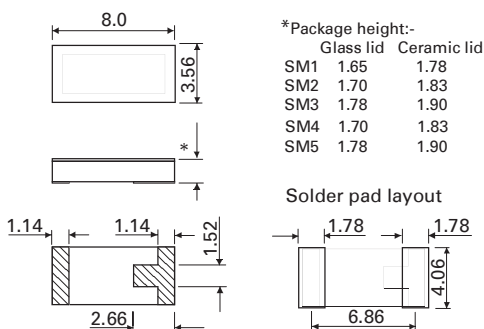
Marking

- Includes Frequency

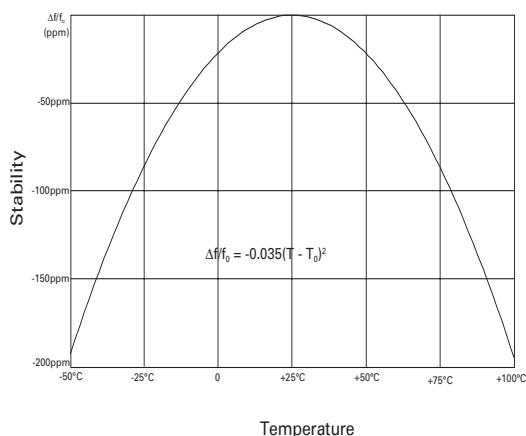
Minimum Order Information Required

- Frequency + Model + Terminations + Frequency Tolerance @ 25°C + Operating Temperature Range + Circuit Condition

Outline in mm



Typical Frequency Temperature Curve (32.768kHz)





Electrical Specification – maximum limiting values

Frequency Range	*Frequency Tolerance @ 25°C ±2°C	Operating Tempertaure Ranges	**ESR max.	Vibration Mode
10.0 to <25.0kHz	A = ±30ppm B = ±100ppm C = ±1000ppm	-10 to 70°C -40 to 85°C -55 to 125°C	2.1MΩ	Tuning Fork
25.0 to <50.0kHz			360kΩ	
50.0 to <75.0kHz			160kΩ	
75.0 to <170.0kHz	A = ±50ppm B = ±100ppm C = ±1000ppm		100kΩ	
170.0 to <250.0kHz	A = ±100ppm B = ±200ppm C = ±2000ppm		50kΩ	
250.0 to 600.0kHz	A = ±200ppm B = ±500ppm C = ±5000ppm			
530.0 to 2.1MHz ***	A = ±500ppm B = ±1000ppm C = ±10000ppm		3kΩ	Extensional

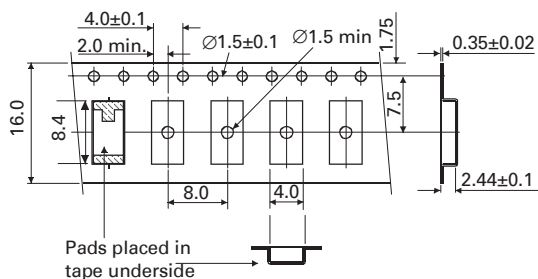
Ordering Example

600.0kHz CX-1V SM1 C C 9pF
 Frequency _____
 Model No _____
 Termination _____
 Frequency Tolerance @ 25°C _____
 Operating Temperature Range: C = -10 to 70°C; I = -40 to 85°C; M = -55 to 125°C _____
 Load Capacitance(Circuit Condition) - if non standard _____

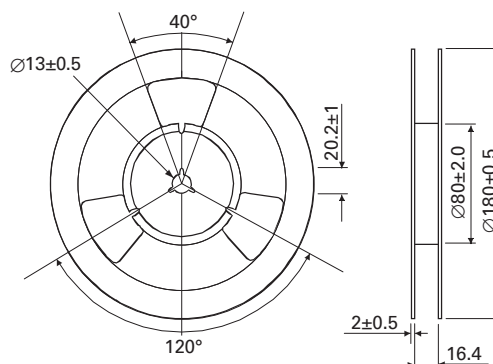
*Please note: other frequency tolerances may be available on request.
 ** Above ESR values are for CX-1H only, CX-1V divide above values by 3.
 *** Only CX-1 available, ESR for this range is as shown in table

SURFACE MOUNT
QUARTZ CRYSTALS

Outline in mm - Tape



Outline in mm - Reel



Tel: +44 (0)1460 270200

Fax: +44 (0)1460 72578

Website: www.iqdfrequencyproducts.com

e-mail: info@iqdfrequencyproducts.com