

CX-1-03 Crystals 10.0kHz to 2.10MHz

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Delivery Options

- Please contact our sales office for current leadtimes

Description

- Statek's CX-1,-1V, -1H crystals are high quality chemically etched resonators manufactured with a photo lithographic process
- The CX-1H version is a tuning fork resonator intended for use in simple series oscillators over the frequency range 10.0 to < 614.40kHz
- The CX-1V versions are intended for use in simple Pierce oscillators. They are tuning fork resonators over the frequency range 10.0 to < 614.40kHz
- The CX-1 are length extensional resonators covering the frequency range 530.0kHz to 2.10MHz

Holder Style

- CX-1-03 crystals are housed in a ceramic package, hermetically sealed, with a soft soldered glass lid & leads

General Specifications

- Load Capacitance (C_L) CX-1V 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 < 614.40kHz)
- Load Capacitance (C_L) CX-1 type:
 - 7pF (530.0kHz to 2.10MHz)
- Other values available upon request
- CX-1H type is calibrated at Series Resonance
- Static Capacitance (C_0): 1.0pF to 2.0pF
- Drive Level CX-1V type:
 - 0.5μW max. (10.0 to < 25.0kHz)
 - 1.0μW max. (25.0 to < 614.40kHz)
- Drive Level CX-1 type:
 - 3.0μW max. (530.0kHz to 2.10MHz)
- Drive Level CX-1H 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 $1/2$ sine (< 614.40kHz)
- Shock: 750g, 0.3ms $1/2$ sine (530.0kHz to 2.10MHz)
- Vibration: 20g, 10 to 2000Hz

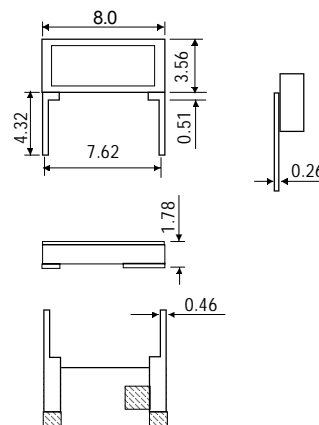
Marking

- Includes Frequency

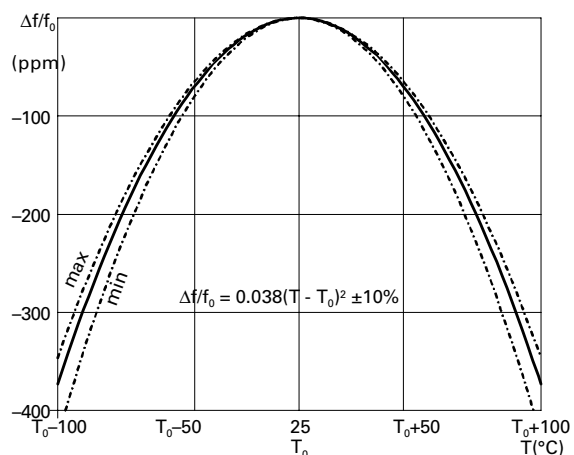
Minimum Order Information Required

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

Outline in mm



Frequency Temperature Curve (32.768kHz)



Electrical Specification – maximum limiting values

Frequency Range	*Frequency Tolerance @ 25°C ±2°C	Operating Temperature Range	**ESR max.	Vibration Mode
10.0 to < 25.0kHz	A = ±30ppm	-10 to 70°C	2.1MΩ	Tuning Fork
	B = ±100ppm	-40 to 85°C		
	C = ±1000ppm	-55 to 125°C		
25.0 to < 50.0kHz	A = ±30ppm	-10 to 70°C	360kΩ	Tuning Fork
	B = ±100ppm	-40 to 85°C		
	C = ±1000ppm	-55 to 125°C		
50.0 to < 75.0kHz	A = ±30ppm	-10 to 70°C	160kΩ	Tuning Fork
	B = ±100ppm	-40 to 85°C		
	C = ±1000ppm	-55 to 125°C		
75.0 to < 170.0kHz	A = ±50ppm	-10 to 70°C	100kΩ	Tuning Fork
	B = ±100ppm	-40 to 85°C		
	C = ±1000ppm	-55 to 125°C		
170.0 to < 250.0kHz	A = ±100ppm	-10 to 70°C	50kΩ	Tuning Fork
	B = ±200ppm	-40 to 85°C		
	C = ±2000ppm	-55 to 125°C		
250.0 to < 614.40kHz	A = ±200ppm	-10 to 70°C	25kΩ	Tuning Fork
	B = ±500ppm	-40 to 85°C		
	C = ±5000ppm	-55 to 125°C		
530.0kHz to 2.10MHz ***	A = ±500ppm	-10 to 70°C	3kΩ	Extensional
	B = ±1000ppm	-40 to 85°C		
	C = ±10000ppm	-55 to 125°C		

Ordering Example 50.0kHz CX-1V 03 C C 9pF

Frequency _____

Model No _____

Terminations _____

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 are available on request.
 ** Above ESR values are for CX-1H only, CX-1V divide above values by 3.
 *** Only CX-1 available

