

CX18SM CRYSTALS

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Description

When miniaturization is paramount, Statek's ultra-miniature CX18SM quartz crystal is the ideal choice. This crystal is available in frequencies from 30MHz to 50MHz, and has typical overall dimensions of 1.55mm x 0.95mm x 0.35mm. This surface mount crystal is hermetically sealed within an ultra-miniature package to ensure high stability and low ageing. The extremely small size of this crystal makes the CX18SM ideally suited for many high frequency applications

Features

- Extremely small footprint (1.55mm x 0.95mm)
- Ultra-low profile (0.35mm)
- Ultra-low weight (1.8mg)
- Hermetically sealed package
- Tight calibration tolerance
- Excellent ageing characteristics

Applications

- Cardiac Rhythm Management Telemetry (CRMT)
- Implantable pacemakers (CRT's)
- Implantable defibrillators (ICD's)
- Hearing assistance and cochlear implants
- Infusion pumps
- Wildlife tracking

General Specifications

- Load Capacitance (C_L): 10pF standard
- Drive Level: 200 μ W max
- Ageing: ± 5 ppm max in 1st year, ± 1 ppm available on request
- Shunt Capacitance (C_0): 0.6pF typ
- Motional Capacitance (C_1): 1.2fF typ
- Quality Factor (Q): 44000 typ

Termination Variants

- SM1 = Gold Plated (RoHS Compliant)
- SM2 = Solder Plated (non RoHS Compliant)
- SM3 = Solder Dipped (non RoHS Compliant)
- SM4 = Solder Plated (RoHS Compliant)
- SM5 = Solder Dipped (RoHS Compliant)

Standard Frequency Tolerances and Stabilities

- ± 10 ppm, ± 20 ppm, ± 30 ppm, ± 50 ppm, ± 100 ppm

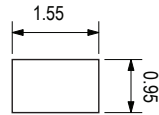
Operating Temperature Ranges

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

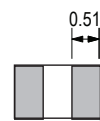
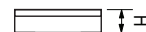
Storage Temperature Range

- -55 to 125°C

Outline (mm) typ



Height (H) =
 SM1 0.35
 SM2 0.37
 SM3 0.42
 SM4 0.37
 SM5 0.42



Underside View

Environmental

- Shock: 5000G, 0.3ms, 1/2 sine wave
- Vibration: MIL-STD-202G, Method 204D, Test Condition D: 20G (10Hz-2000Hz), swept sine wave

Packaging

- Tray pack

Ordering Information (*minimum required)

- Frequency*
- Model*
- Termination Variant*
- Frequency Tolerance (@25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone

Example

- 40.0MHz CX18SM SM1
100/100/-55 to 125C/10 FUND



Electrical Specifications - maximum limiting values

Frequency Range	Frequency Tolerance @25°C	Operating Temperature Range	Frequency Stability Available Over Operating Temperature Range		ESR Typical @ 50MHz	Vibration Mode
			Minimum	Maximum		
30.0 to 50.0MHz	±100ppm	-10 to 70°C	±10ppm	±50ppm	60Ω	Fundamental AT cut
		-40 to 85°C	±20ppm	±100ppm		
		-55 to 125°C	±30ppm	±100ppm		

Note: For other frequency / specification combinations please contact our sales offices

Provisional

