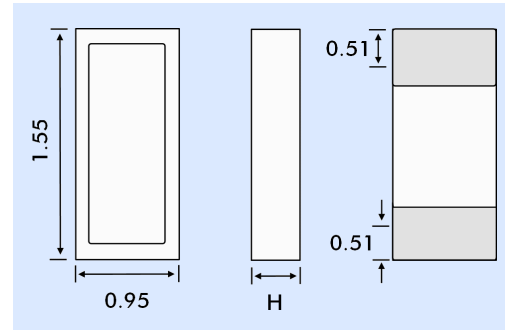


### FEATURES

- Ultra-miniature SMD package 1.55 x 0.95 x 0.35mm
- Frequency Range 30MHz ~ 50MHz
- High shock and vibration resistance
- Hermetically sealed
- Available with glass or ceramic lid
- Tight calibration tolerance
- Custom designs available



### OUTLINE & DIMENSIONS



Dim. H	Glass Lid
SM1	0.35
SM2	0.37
SM3	0.42
SM4	0.37
SM5	0.42

### DESCRIPTION

CX18SM crystals are designed for applications where miniaturization is paramount. The rugged crystal is ideally suited for a wide variety of high frequency applications including medical electronics, cardiac rhythm management, pacemakers for example. Also suitable for cochlear implants, infusion pumps and wildlife tracking.

### SPECIFICATION

Specifications stated are typical at 25°C unless otherwise indicated. Specifications may change without notice.

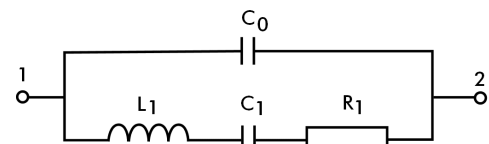
<b>Fundamental Frequency:</b>	<b>50.0MHz</b>
Motional Resistance R ( $\Omega$ ):	60
Motional Capacitance C1 (fF):	1.2
Quality Factor Q (k):	44
Shunt Capacitance C0 (pF):	0.6
Standard Calibration Tolerance <sup>1</sup> :	$\pm 100$ ppm or tighter as required.
Load Capacitance:	10pF (or as specified)
Drive Level:	200 $\mu$ W maximum
Frequency Stability <sup>1,2</sup>	
-10° to +70°C:	$\pm 50$ ppm to $\pm 10$ ppm
-40° to +85°C:	$\pm 100$ ppm to $\pm 20$ ppm
-55° to +125°C:	$\pm 100$ ppm to $\pm 30$ ppm
Ageing, First Year:	$\pm 5$ ppm maximum (Better than $\pm 1$ ppm available)
Shock, Survival:	5000g, 0.3ms, 1/2 sine
Vibration, Survival <sup>3</sup> :	20g rms, 10~2000Hz swept sine
Operating Temperature Range:	-10°C to +70°C (Commercial) -40°C to +85°C (Industrial) -55°C to +125°C (Military)
Storage Temperature Range:	-55° to +125°C
Maximum Process Temperature:	+260°C for 20 seconds

1. Other tolerances available, contact Euroquartz sales
2. Does not include calibration tolerance. (Frequency stability characteristics follow that of the AT-Cut thickness-shear mode.)
3. Per MIL-STD-202G, Method 204D, Condition D. Random vibration testing also available.

### TERMINATIONS - PLATING

Designation	Termination
SM1	Gold Plated (Lead Free)
SM2	Solder Plated
SM3	Solder Dipped
SM4	Solder Plated (Lead Free)
SM5	Solder Dipped (Lead Free)

### CRYSTAL EQUIVALENT CIRCUIT



R1 Motional Resistance      L1 Motional Inductance  
C1 Motional Capacitance      C0 Shunt Capacitance

### PACKAGING OPTIONS

CX18SM AT crystals are available either tray packed (<250pcs) or tape and reel (>250 pieces).  
12mm tape, 178mm or 330mm reels (EIA 418).

### HOW TO ORDER CX18SM AT CRYSTALS

