

Quartz Crystal

Frequency Range: 10MHz to 50MHz (fund)
20MHz to 100MHz (3rd O/T)
50MHz to 200MHz (5th O/T)

Frequency Tolerance: $\pm 10\text{ppm}$ to $\pm 100\text{ppm}$

Frequency Stability: $\pm 10\text{ppm}$ to $\pm 100\text{ppm}$

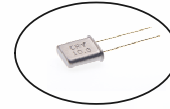
Temperature Range: 0°C to 70°C
(Option) -20°C to 70°C
(Option) -40°C to 85°C
(Option) -55°C to 120°C

Storage:

Shunt Capacitance: 7.0pF Max

Drive Level: 100 uW Typical

ESR: see table 1

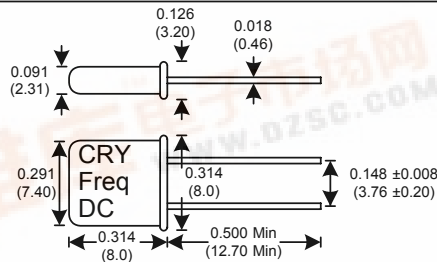


Lead Free
RoHS
Compliant

Designed to provide traditional crystal design flexibility of the HC49 in a smaller UM-1 package. Custom lead forming available for SMD applications.

****Custom Designs Available**

Aging: $<3\text{ppm}$ 1st/yr Max



Resistance at series resonance	
Freq. (MHz)	Max ESR
10.0 - 18.0	60
18.1 - 50.0	40
20.0 - 100.0	60
50.0 - 200.0	100

Table 1

Dimensions inches (mm)
All dimensions are Max unless otherwise specified.

Build Your Own P/N

CRM X X X X - Freq

Frequency Tolerance at 25°C	
1	$\pm 10\text{ ppm}$
2	$\pm 15\text{ ppm}$
3	$\pm 20\text{ ppm}$
4	$\pm 25\text{ ppm}$
5	$\pm 30\text{ ppm}$
6	$\pm 50\text{ ppm}$
7	$\pm 100\text{ ppm}$

Frequency Stability over Temp Range					
A	±10 ppm	(0 to 70°C)	J	±30ppm	(-20 to 70°C)
B	±15 ppm	(0 to 70°C)	K	±50 ppm	(-20 to 70°C)
C	±20 ppm	(0 to 70°C)	L	±100 ppm	(-20 to 70°C)
D	±25 ppm	(0 to 70°C)	M	±200 ppm	(-40 to 85°C)
E	±30 ppm	(0 to 70°C)	N	±25 ppm	(-40 to 85°C)
F	±50 ppm	(0 to 70°C)	O	±30 ppm	(-40 to 85°C)
G	±100 ppm	(0 to 70°C)	P	±50 ppm	(-40 to 85°C)
H	±15 ppm	(-20 to 70°C)	Q	±100 ppm	(-40 to 85°C)
I	±20 ppm	(-20 to 70°C)			

Load Capacitance	
1	Series
2	14 pF
3	16 pF
4	18 pF
5	20 pF
6	22 pF
7	25 pF
8	32 pF

Example:

CRM4F51-20.000 = $\pm 25\text{ppm}$ at 25°C , $\pm 50\text{ppm}$ 0 to 70°C , 20pF Load Cap, Fundamental, 20.000MHz

Mode

- 1 Fundamental 10-50 MHz
- 3 3rd Overtone 20-100 MHz
- 5 5th Overtone 50-200 MHz

Specifications subject to change without notice.

TD-021014 Rev. B