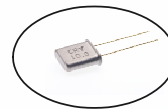


Quartz Crystal

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
Storage: -55°C to 120°C
Shunt Capacitance: 7.0pF Max
Drive Level: 100 uW Typical
ESR: see table 1

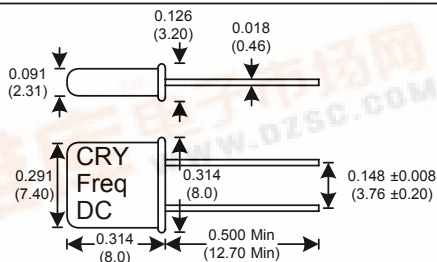


Lead Free
RoHS
Compliant

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 $\pm 10\text{ ppm}$ (0 to 70°C)	J $\pm 30\text{ppm}$ (-20 to 70°C)
B $\pm 15\text{ ppm}$ (0 to 70°C)	K $\pm 50\text{ ppm}$ (-20 to 70°C)
C $\pm 20\text{ ppm}$ (0 to 70°C)	L $\pm 100\text{ ppm}$ (-20 to 70°C)
D $\pm 25\text{ ppm}$ (0 to 70°C)	M $\pm 20\text{ ppm}$ (-40 to 85°C)
E $\pm 30\text{ ppm}$ (0 to 70°C)	N $\pm 25\text{ ppm}$ (-40 to 85°C)
F $\pm 50\text{ ppm}$ (0 to 70°C)	O $\pm 30\text{ ppm}$ (-40 to 85°C)
G $\pm 100\text{ ppm}$ (0 to 70°C)	P $\pm 50\text{ ppm}$ (-40 to 85°C)
H $\pm 15\text{ ppm}$ (-20 to 70°C)	Q $\pm 100\text{ ppm}$ (-40 to 85°C)
I $\pm 20\text{ ppm}$ (-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

Mode

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

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

Specifications subject to change without notice.

TD-021014 Rev. B