

# HC-49S

Thru-Hole Crystal

## Size, mm

11.0 x 4.6 x 3.5

## Frequency Stability

±30 PPM

## Temperature Range

0°C to 70°C

## Frequency Range

3.5-66.0 MHz

## Features

- Meets NEL requirements for product reliability
- Resistance welded low profile holder
- Frequency range 3.500 MHz to 66.000 MHz
- Special frequencies available

# Thru-Hole Crystal HC-49S

Frequency Range: 3.5 MHz to 66.0 MHz

## Creating a Part Number

HC-49S - 10.00 - 20 - F - A - XX

Holder Type

Frequency (MHz)

Load Capacitance

XXpF; S: Series Resonant

Mode of Operation

F: AT-Cut Fundamental

B: BT-Cut Fundamental

T: 3rd Overtone

Available Options

Blank = None (std) S = Insulator Tab

P = Third Lead L = Custom Lead Length

TR = Tape & Reel

Frequency Tolerance/Temperature Stability at 25° (Ref to 25°C)

A: ±50 ppm/±50 ppm -10°C to 70°C (AT)

B: ±30 ppm/±30 ppm -10°C to 70°C (AT)

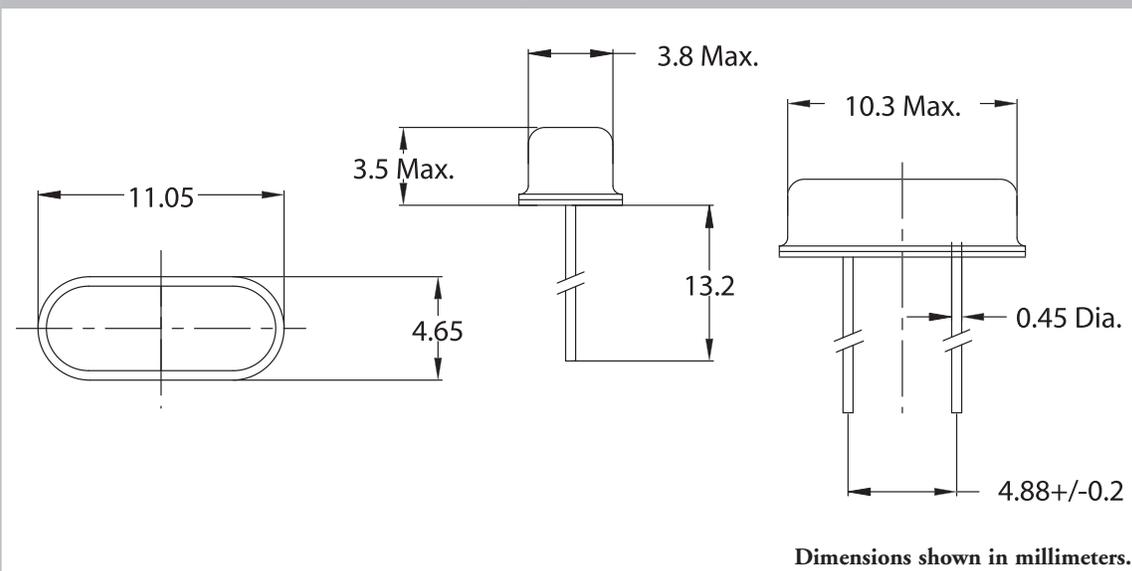
C: ±50 ppm/±100 ppm -10°C to 70°C (AT)

D: ±50 ppm/±100 ppm 0°C to 70°C (BT)

## Electrical Specifications

Frequency Range (F <sub>0</sub> )	3.500 MHz to 66.000 MHz	
Storage Temperature Range (T <sub>STG</sub> )	-40°C to 85°C	
Shunt Capacitance (C <sub>0</sub> )	7 pF Max.	
Load Capacitance (C <sub>L</sub> )	10 to 32 pF or Series Resonant	
Insulation Resistance	500 Megaohms Minimum at 100 V <sub>DC</sub>	
Drive Level	1 mWatts Max.	
Aging (at 25°C)	±5 ppm/year Max.	
Equivalent Series Resistance	Frequency Range	E.S.R. (Ω) Max
Mode: Fundamental/AT	3.500 to 3.999 MHz	150
Mode: Fundamental/AT	4.000 to 4.499 MHz	150
Mode: Fundamental/AT	4.500 to 4.999 MHz	120
Mode: Fundamental/AT	5.000 to 5.999 MHz	120
Mode: Fundamental/AT	6.000 to 6.999 MHz	100
Mode: Fundamental/AT	7.000 to 7.999 MHz	90
Mode: Fundamental/AT	8.000 to 8.999 MHz	80
Mode: Fundamental/AT	9.000 to 9.999 MHz	60
Mode: Fundamental/AT	10.000 to 12.999 MHz	50
Mode: Fundamental/AT	13.000 to 19.999 MHz	40
Mode: Fundamental/AT	20.000 to 30.000 MHz	40
Mode: 3rd Overtone/AT	30.000 to 66.000 MHz	80
Mode: Fundamental/BT	27.000 to 40.000 MHz	40

## Drawing Specifications



FREQUENCY  
CONTROLS, INC.

For the most up to date specifications on each NEL product, log on to our website—[www.nelfc.com](http://www.nelfc.com)