

# HC-49SM

SMD Crystal

## Size, mm

12.3 x 4.5 x 5.0

## 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
- The HC-49SM has a resistance welded low profile holder
- Frequency range 3.500 MHz to 66.0 MHz
- Special frequencies available

# SMD Crystal HC-49SM

Frequency Range: 3.50 MHz to 66.0 MHz

## Creating a Part Number

HC-49SM - 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)

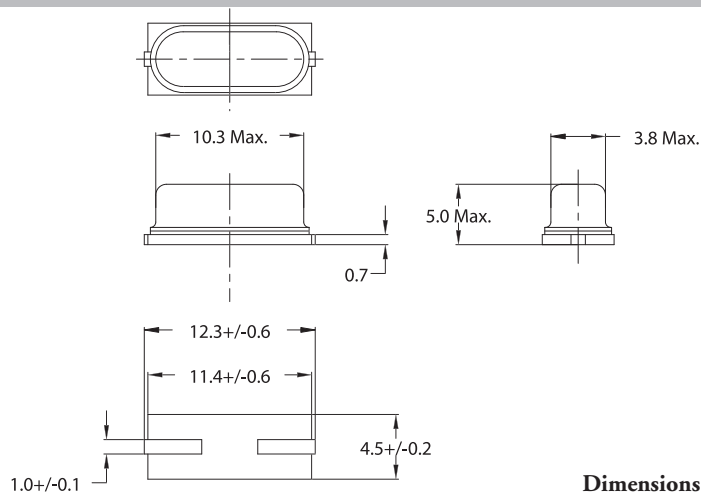
C: ±50 ppm/±100 ppm -10°C to 70°C (AT)

D: ±50 ppm/±100 ppm 0°C to 70°C (BT)

## Electrical Specifications

|   |   |                |
|---|---|----------------|
| Frequency Range (F <sub>o</sub> )       | 3.500 MHz to 66.000 MHz                     |                |
| Storage Temperature (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



Dimensions shown in millimeters.



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