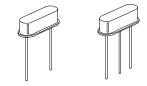


## Pletronics, Inc.

19013 36th Ave. W, Suite H • Lynnwood, WA 98036 USA Manufacturer of High Quality Frequency Control Products

# LP Crystal Series

- HC-49/US Low Profile Metal Thru-Hole Crystals
- Available in 3 heights, LP49: 3.5mm, LP24: 2.5mm, LP21: 2.1mm and with 3rd Case Pin: 3LP49



3.000 MHz - 70.000 MHz

## Standard Specifications

Calibration Frequency Tolerance at 25 °C Operating Temperature Range (OTR) Frequency Stability (FS) over OTR Drive Level

Aging at 25°C **Shunt Capacitance** 

**Pullability** 

± 30 PPM is standard, tighter tolerances available

0 to +70°C is standard, but can be extended to -40 to +85°C

± 50 PPM is standard, tighter tolerances available

 $50 \mu W$  is standard, customer may specify

± 5 PPM per year is standard, customer may specify ± 1 PPM

7 pF maximum

May be specified by customer in terms of frequency shift required over a certain range of load capacitance (e.g. +100 PPM from CL=12 to CL=18 pF) or as motional capacitance (fF)

#### Part Numbering Guide **ESR Values** Portions of the part number that appear after the frequency may not Oscillation Frequency Range Maximum be marked on part (C of C provided) Mode (MHz) ESR (Ohms) LP49 B E - xx - 70.0M - IN XXX (Internal Code or blank) **Fundamental** 3.000 - 3.999200 AT Cut 150 4.000 - 4.999**Options** Model (Height) 5.000 - 5.999IN = Insulator 120 LP49: 3.56mm 100 TR = Paper Tape & Reel 6.000 - 6.999LP24: 2.5mm PN = Put on Pads 7.000 - 7.99980 LP21: 2.1mm 8.000 - 12.99950 Frequency in MHz 3LP49: case pin, 13.000 - 30.00040 **Load Capacitance** 3.56mm Parallel Resonance in pF (3 10 pF) 3rd Overtone 25.000 - 70.000 100 SR = Series Resonance AT Cut Cal Tol / Freq Stability **Temperature Range** Blank = 30/50B = 30/30Blank: 0 to +70°C Consult factory for lower ESR C = 15/30E: - 40 to +85°C D = 10/20 (consult factory) H: - 20 to +70°C

Consult factory for available frequencies and specs. Not all options available for all frequencies. A special part number may be assigned

## Mechanical: inches (mm)

### not to scale

3LP49

Due to part size and factory abilities, part marking may vary from lot to lot and may contain our part number or an internal code.

