

# Resistance Weld Thru-Hole Crystal



Model: HC49ULF

RoHS Compliant / Pb Free

Rev. 4/23/2014

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Need a  
Sample®

## FEATURES

- Low Cost
- Stocking Standard (see page 2)
- High Frequency Range
- Fundamental to 40 MHz
- Resistance Weld

## OPTIONS

- Tolerances to 5 PPM
- Stabilities to 3 PPM
- Temperatures to -40°C ~ +105°C
- Mylar Spacer
- Vinyl Sleeve
- Third Lead

## • PART NUMBER

| Part Number           | Model Number | Frequency Range (MHz) |
|-----------------------|--------------|-----------------------|
| 281LF-Frequency-xxxxx | HC49ULF      | 1.8432 ~ 180.000      |

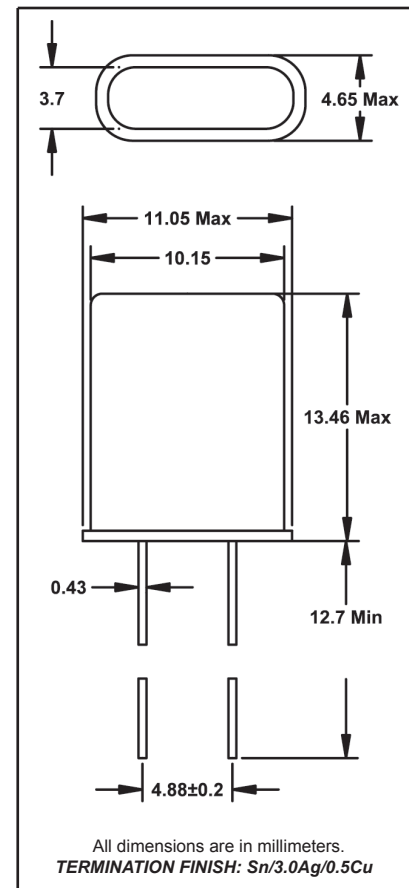
## • STANDARD SPECIFICATIONS<sup>1</sup>

| PARAMETERS                                                   | MAX (unless otherwise noted)           |
|--------------------------------------------------------------|----------------------------------------|
| Frequency Range                                              | 1.8432 ~ 180.000 MHz                   |
| Frequency Tolerance @ 25°C                                   | ±30 PPM                                |
| Frequency Stability, ref @ 25°C<br>Over Operating Temp Range | ±50 PPM                                |
| Temperature Range                                            |                                        |
| Operating (TOPR)                                             | -20°C ~ +70°C                          |
| Storage (TSTG)                                               | -40°C ~ +85°C                          |
| Shunt Capacitance (Co)                                       | 7.0 pF                                 |
| Load Capacitance (CL)                                        | 10 pF ~ Series<br>(Customer Specified) |
| Drive Level                                                  |                                        |
| 1.8432 ~ 3.000 MHz                                           | 2.0 mW                                 |
| 3.000+ ~ 180.000 MHz                                         | 1.0 mW                                 |
| Aging per year                                               | ±5 PPM                                 |

<sup>1</sup> Other tolerances, stabilities & operating temperature ranges available. Consult Fox Customer Service for specific requirements.

All specifications subject to change without notice.

| Frequency Range (MHz) | Operating Mode | Max ESR Ω |
|-----------------------|----------------|-----------|
| 1.8432 ~ 2.000        | Fundamental    | 750       |
| 2.000+ ~ 2.400        | Fundamental    | 500       |
| 2.400+ ~ 3.000        | Fundamental    | 300       |
| 3.000+ ~ 3.200        | Fundamental    | 200       |
| 3.200+ ~ 3.700        | Fundamental    | 120       |
| 3.700+ ~ 4.200        | Fundamental    | 100       |
| 4.200+ ~ 4.900        | Fundamental    | 70        |
| 4.900+ ~ 5.000        | Fundamental    | 55        |
| 5.000+ ~ 6.000        | Fundamental    | 50        |
| 6.000+ ~ 8.000        | Fundamental    | 40        |
| 8.000+ ~ 10.000       | Fundamental    | 35        |
| 10.000+ ~ 12.500      | Fundamental    | 30        |
| 12.500+ ~ 16.000      | Fundamental    | 25        |
| 16.000+ ~ 40.000      | Fundamental    | 20        |
| 23.000+ ~ 75.000      | 3rd OT         | 40        |
| 60.000 ~ 110.000      | 5th OT         | 80        |
| 110.000 ~ 180.000     | 7th OT         | 120       |



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| • HC49ULF Standard Crystals |           |           |           |              |        |
|-----------------------------|-----------|-----------|-----------|--------------|--------|
| Part Number                 | Frequency | Tolerance | Stability | Temp Range   | CL     |
| FOXLF018S                   | 1.843200  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 13pF   |
| FOXLF024S                   | 2.457600  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 32pF   |
| FOXLF036S                   | 3.579545  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 18pF   |
| FOXLF0368S                  | 3.686400  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | Series |
| FOXLF0368-20                | 3.686400  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF040A                   | 4.000000  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | Series |
| FOXLF040                    | 4.000000  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF080-20                 | 8.000000  | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF100-20                 | 10.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF115                    | 11.059200 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | Series |
| FOXLF115-20                 | 11.059200 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF120                    | 12.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | Series |
| FOXLF120-20                 | 12.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF160                    | 16.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | Series |
| FOXLF160-20                 | 16.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF200-20                 | 20.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |
| FOXLF250F-20                | 25.000000 | ± 30 ppm  | ± 50 ppm  | -20 to +70 C | 20pF   |