

# Resistance Weld SMD Crystal



Model: HC49SDLF

RoHS Compliant / Pb Free

Rev. 12/4/2006

Page 1 of 2

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## FEATURES

- Stock Standard (see page 2)
- Fundamental to 50 MHz
- Tape and Reel (1,000 pcs. STD)

## OPTIONS

- Tolerances to 10 PPM
- Stabilities to 5 PPM
- 4 Pad HC49SPXLF (alternative to FPXLF)
- Temperatures to -40°C ~ +105°C
- 3.2mm Height Max (HC49SSDLF)

## • PART NUMBER [Learn More](#) - Internet Required

| Part Number           | Model Number | Frequency Range (MHz) |
|-----------------------|--------------|-----------------------|
| 278LF-Frequency-xxxxx | HC49SDLF     | 3.200 ~ 70.000        |

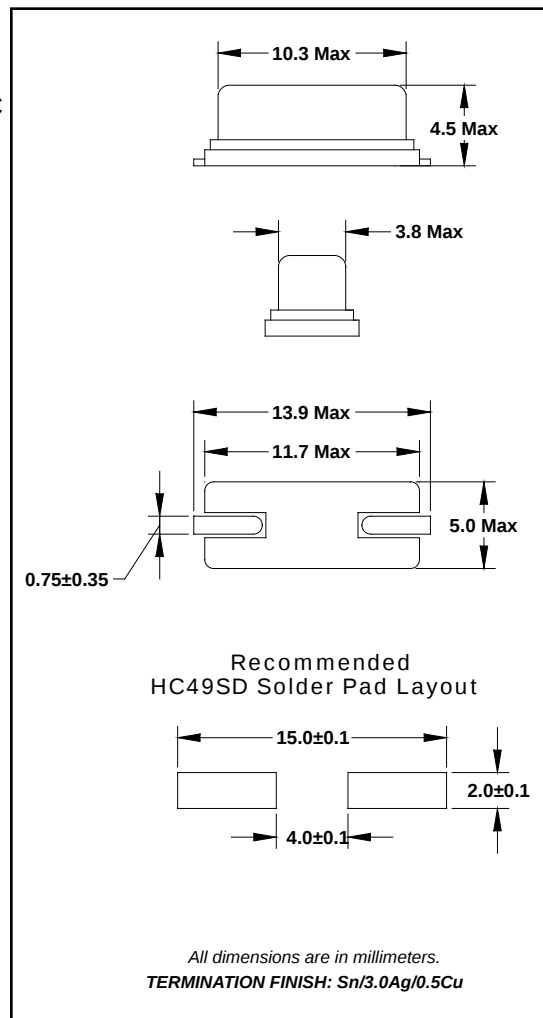
## • STANDARD SPECIFICATIONS<sup>1</sup>

| PARAMETERS                                                   | MAX (unless otherwise noted)           |
|--------------------------------------------------------------|----------------------------------------|
| Frequency Range                                              | 3.200 ~ 70.000 MHz                     |
| Frequency Tolerance @ 25°C                                   | ±50 PPM <sup>1,2</sup>                 |
| Frequency Stability, ref @ 25°C<br>Over Operating Temp Range | ±50 PPM <sup>1</sup>                   |
| Temperature Range                                            |                                        |
| Operating (TOPR)                                             | -20°C ~ +70°C <sup>1</sup>             |
| Storage (TSTG)                                               | -40°C ~ +85°C                          |
| Shunt Capacitance (Co)                                       | 7pF                                    |
| Load Capacitance (CL)                                        | 10 pF ~ Series<br>(Customer Specified) |
| Drive Level                                                  | 0.5 mW                                 |
| Aging per year                                               | ±5 PPM                                 |
| Maximum Soldering Temp / Time                                | 260°C / 10 Seconds                     |
| Moisture Sensitivity Level (MSL)                             | 1                                      |

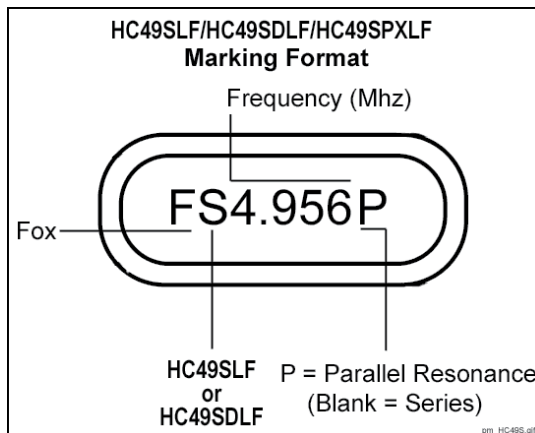
<sup>1</sup> Other tolerances, stabilities & operating temperature ranges available. Consult Fox Customer Service for specific requirements.

<sup>2</sup> Crystal has a ±30ppm tolerance specification for all standard part numbers. These part numbers are listed on page 2 of this datasheet.

All specifications subject to change without notice.



| Frequency Range (MHz) | Operating Mode | Max ESR Ω |
|-----------------------|----------------|-----------|
| 3.200 ~ 3.500         | Fundamental    | 300       |
| 3.500+ ~ 4.000        | Fundamental    | 200       |
| 4.000+ ~ 5.000        | Fundamental    | 150       |
| 5.000+ ~ 6.000        | Fundamental    | 120       |
| 6.000+ ~ 7.000        | Fundamental    | 100       |
| 7.000+ ~ 9.000        | Fundamental    | 80        |
| 9.000+ ~ 13.000       | Fundamental    | 60        |
| 13.000+ ~ 20.000      | Fundamental    | 40        |
| 20.000+ ~ 50.000      | Fundamental    | 30        |
| 27.000 ~ 70.000       | 3rd OT         | 100       |





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Page 2 of 2

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| • FOX STANDARD SPECIFICATIONS |               |
|-------------------------------|---------------|
| PARAMETER                     | HC49SDF       |
| Frequency Tolerance @ 25°C    | ±30PPM        |
| Frequency Stability           | ±50PPM        |
| Operating Temperature Range   | -20°C ~ +70°C |

All specifications subject to change without notice.

## • HC49SDF Standard Crystals

| Frequency | CL   | HC49SDF Part Number           | ESR $\Omega$ Max |
|-----------|------|-------------------------------|------------------|
| 3.579545  | 18pF | FOXSDLF/036S                  | 200              |
| 3.686400  | 20pF | FOXSDLF/0368-20               | 200              |
| 4.000000  | 20pF | FOXSDLF/040                   | 150              |
| 4.194304  | 12pF | FOXSDLF/041                   | 150              |
| 4.915200  | 20pF | FOXSDLF/049-20                | 150              |
| 6.000000  | 20pF | FOXSDLF/060-20                | 120              |
| 7.372800  | 20pF | FOXSDLF/073-20                | 80               |
| 8.000000  | 20pF | FOXSDLF/080-20                | 80               |
| 8.192000  | 20pF | FOXSDLF/081-20                | 80               |
| 10.000000 | 20pF | FOXSDLF/100-20                | 60               |
| 11.059200 | 20pF | FOXSDLF/115-20                | 60               |
| 12.000000 | 20pF | FOXSDLF/120-20                | 60               |
| 12.288000 | 20pF | FOXSDLF/128-20                | 60               |
| 14.318180 | 20pF | FOXSDLF/143-20                | 40               |
| 14.745600 | 20pF | FOXSDLF/147-20                | 40               |
| 16.000000 | 20pF | FOXSDLF/160-20                | 40               |
| 20.000000 | 20pF | FOXSDLF/200-20                | 30               |
| 22.118400 | 20pF | FOXSDLF/221-20                | 30               |
| 24.000000 | 20pF | FOXSDLF/240F-20 (Fundamental) | 30               |
| 24.576000 | 20pF | FOXSDLF/245F-20 (Fundamental) | 30               |
| 25.000000 | 20pF | FOXSDLF/250F-20 (Fundamental) | 30               |

## • TAPE SPECIFICATIONS (millimeters)

| MODEL   | A    | B   | C    | D    | E    | F   | STD Reel QTY |
|---------|------|-----|------|------|------|-----|--------------|
| HC49SDF | Ø1.5 | 4.0 | 12.0 | 11.5 | 24.0 | 4.8 | 1,000        |

## • REEL SPECIFICATIONS (millimeters)

| MODEL   | G   | H   | I   | J   | K    | L    | M   |
|---------|-----|-----|-----|-----|------|------|-----|
| HC49SDF | 2.0 | Ø13 | Ø21 | Ø80 | Ø330 | 25.5 | 2.0 |

