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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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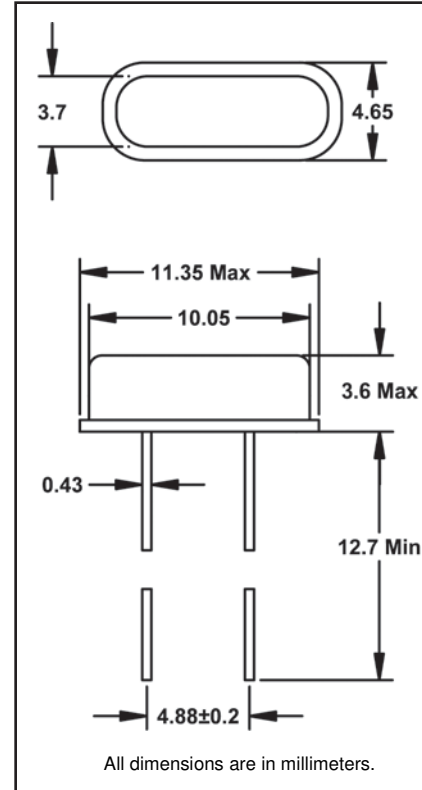
# Thru-Hole Crystal

# C4ST (former HC49SLF) DATASHEET

- Tolerances down to 10 PPM
- Stabilities down to 15 PPM
- Operating Temperature Range up to -55°C ~ +125°C

• C4ST STANDARD SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	3.200 ~ 80.000 MHz
Frequency Tolerance @ 25°C	(See options on page 2)
Frequency Stability, ref @ 25°C	(See options below)
Temperature Range	
Operating (TOPR)	(See options below)
Storage (TSTG)	-40°C ~ +125°C
Shunt Capacitance (Co)	7pF
Load Capacitance (CL)	(See options on page 2)
Drive Level	0.5 mW (0.1 mW Typical)
Aging per year	±3 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Sn/Ag/Cu
Seam Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
3.200 ~ 3.500	Fundamental	300
3.500001 ~ 4.000	Fundamental	200
4.000001 ~ 5.000	Fundamental	150
5.000001 ~ 6.000	Fundamental	120
6.000001 ~ 7.000	Fundamental	100
7.000001 ~ 9.000	Fundamental	80
9.000001 ~ 13.000	Fundamental	60
13.000001 ~ 20.000	Fundamental	40
20.000001 ~ 40.000	Fundamental	30
27.000000 ~ 70.000	3rd OT	100
70.000001 ~ 80.000	3rd OT	70



Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary. All specifications subject to change without notice.

## • Available Operating Temperatures and Stabilities\*

Operating Temperature	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM	±100 PPM
-10°C to +60°C	Δ	O	O	O	O	O
-20°C to +70°C	X	X	Δ	O	O	O
-40°C to +85°C	X	X	Δ	O	O	O
-40°C to +105°C	X	X	X	X	O	O
-55°C to +125°C	X	X	X	X	Δ	O

Key: O=Available, X=Not Available, Δ=Consult Fox Technical Support  
\*Does not imply a stocked part.

<p>© Copyright 2017 Fox Electronics. All rights reserved</p>	<b>Title / Description:</b> C4ST STANDARD SPECIFICATIONS		
	<b>Drawing Number:</b> 100955		<b>Size:</b> A
	<b>Part Number:</b>		<b>Case:</b> 61429
	<b>Draftsperson:</b> CMR	<b>Approved:</b> RB	<b>Revision Date:</b> 03/03/2017



# Thru-Hole Crystal

**C4ST**  
(former HC49SLF)  
**DATASHEET**

**Available Options & Part Identification for Thru-Hole Crystal C4ST\***  
**F C4ST C B M F 16.000**

<b>F</b>	<b>C4ST</b>	<b>C</b>	<b>B</b>	<b>M</b>	<b>F</b>	<b>16.000</b>
<b>FOX</b>	<b>Model Number</b>	<b>Tolerance</b> B=50ppm <b>C=30ppm</b> D=25ppm E=20ppm F=15ppm H=10ppm	<b>Stability</b> A=100ppm <b>B=50ppm</b> C=30ppm D=25ppm E=20ppm F=15ppm	<b>Load Capacitance</b> A=Series E=10pF G=12pF K=16pF L=18pF <b>M=20pF</b> N=22pF P=27pF Q=30pF R=32pF S=33pF	<b>Operating Temperature</b> D=-10 to +60C <b>F=-20 to +70C</b> M=-40 to +85C P=-40 to +105C T=-55 to +125C	<b>Frequency (MHz)</b>

\* Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.

<b>• C4ST (former HC49SLF) Standard Crystals</b>					
<b>Part Number</b>	<b>Frequency</b>	<b>Tolerance</b>	<b>Stability</b>	<b>Temp Range</b>	<b>CL</b>
FOXSLF/036S	3.579545	± 30 ppm	± 50 ppm	-20 to +70 C	18pF
FOXSLF/0368S	3.686400	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/0368-20	3.686400	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/040A	4.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/040	4.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/073-20	7.372800	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/080	8.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/080-20	8.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/100-20	10.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/115	11.059200	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/115-20	11.059200	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/120	12.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/120-20	12.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/147-20	14.745600	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/160	16.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/160-20	16.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/184-20	18.432000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/200	20.000000	± 30 ppm	± 50 ppm	-20 to +70 C	Series
FOXSLF/200-20	20.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF
FOXSLF/250F-20	25.000000	± 30 ppm	± 50 ppm	-20 to +70 C	20pF

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	<b>Part Number:</b>		<b>Cage:</b> 61429
	<b>Draftsperson:</b> CMR	<b>Approved:</b> RB	<b>Revision Date:</b> 03/03/2017





# Thru-Hole Crystal

# C4ST

(former HC49SLF)  
**DATASHEET**



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For datasheet type definitions and a glossary of common terms, visit <http://www.foxonline.com/tgcrystals.html> .

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