



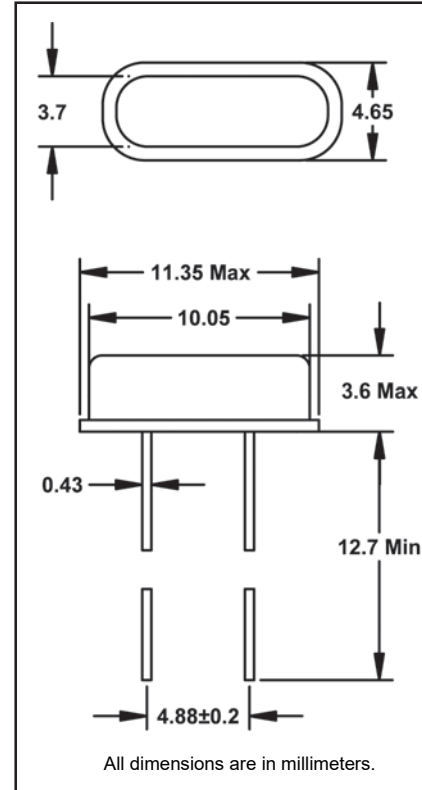
Thru-Hole Crystal

C4ST
(former HC49SLF)
DATASHEET

- Tolerances down to ± 10 PPM
- Stabilities down to ± 5 PPM
- Operating Temperature Range to $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

• 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)	$-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
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	$260^{\circ}\text{C} / 10$ Seconds
Moisture Sensitivity Level (MSL)	1
Termination Finish	Sn/Ag3.0/Cu0.5
Seam Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS/REACH 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
24.000 ~ 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	± 5 PPM	± 10 PPM	± 15 PPM	± 20 PPM	± 25 PPM	± 30 PPM	± 50 PPM	± 100 PPM
-10°C to $+60^{\circ}\text{C}$	O	O	O	O	O	O	O	O
-20°C to $+70^{\circ}\text{C}$	Δ	O	O	O	O	O	O	O
-40°C to $+85^{\circ}\text{C}$	X	X	O	O	O	O	O	O
-40°C to $+105^{\circ}\text{C}$	X	X	X	X	X	Δ	O	O
-40°C to $+125^{\circ}\text{C}$	X	X	X	X	X	X	Δ	O
-55°C to $+125^{\circ}\text{C}$	X	X	X	X	X	X	Δ	O

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

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	Drawing Number: C4ST-DOC-2		Size: A
	Part Number:		Case: 61429
	Draftsperson: BEC	Approved: MAJ	Revision Date: 06/10/2019



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Available Options & Part Identification for Thru-Hole Crystal C4ST¹ **F C4ST C B M F 16.0**

F	C4ST	C	B	M	F	16.0
FOX	Model Number	Tolerance B = ±50ppm C = ±30ppm D = ±25ppm E = ±20ppm F = ±15ppm H = ±10ppm	Stability A = ±100ppm B = ±50ppm C = ±30ppm D = ±25ppm E = ±20ppm F = ±15ppm H = ±10ppm L = ±5ppm	Load Capacitance² A = Series E = 10pF G = 12pF K = 16pF L = 18pF M = 20pF	Operating Temperature D = -10 to +60°C F = -20 to +70°C M = -40 to +85°C P = -40 to +105°C I = -40 to +125°C T = -55 to +125°C	Frequency (MHz)

¹ Not all frequency, tolerance, stability, load, and operating temperature combinations may be available.

² Listed load capacitances represent the most commonly used. Other load capacitances are available. Contact Fox Technical Support for assistance



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