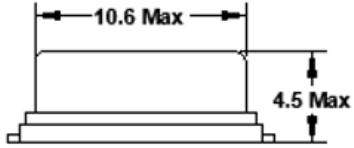
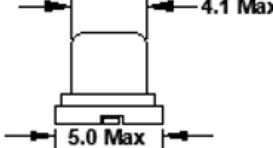
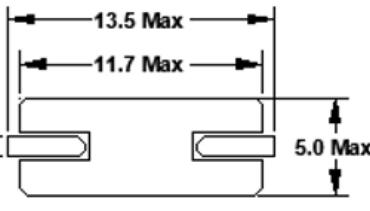
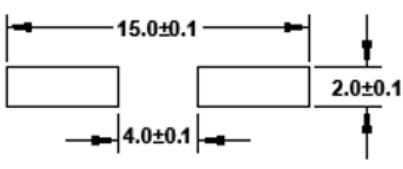


Features

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

STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	3.200 ~ 80.000 MHz
Frequency Tolerance @ 25°C	(See options below)
Frequency Stability, ref 25°C	
Over Operating Temp Range	(See options below)
Temperature Range	
Operating (T_{OPR})	(See options below)
Storage (T_{STG})	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Shunt Capacitance (C_0)	7 pF
Load Capacitance (C_L)	(See options below)
Drive Level	0.5mW (100 μW Typical)
Aging per year (@ 25°C)	± 3 PPM
Maximum Soldering Temp / Time	260 $^{\circ}\text{C}$ / 10 Seconds x 2
Moisture Sensitivity Level (MSL) per J-STD-033	1
Termination Finish	Sn/Ag3.0/Cu0.5
Seal Method	Resistance Weld
Lead (Pb) Free	Yes
RoHS Compliant	Yes-No Exemptions

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 ~ 40.000	Fundamental	30
24.000 ~ 70.000	3rd OT	100
>70.000 ~ 80.000	3rd OT	70

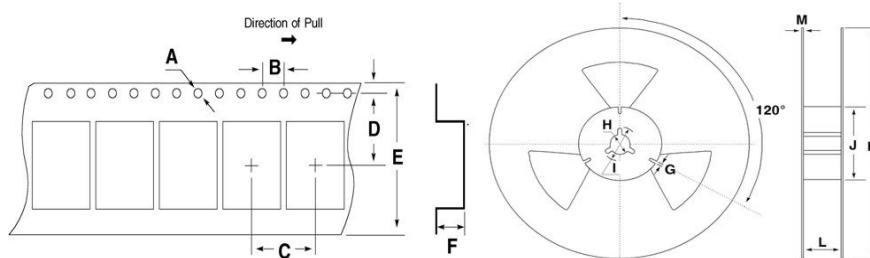
DIMENSIONS / MECHANICAL SPECIFICATIONS	
	
	
	
Recommended Solder Pad Layout	
	
Dimensions are in millimeters.	
Note: Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary.	

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°C	O	O	O	O	O	O	O	O
-20°C to +70°C	Δ	O	O	O	O	O	O	O
-40°C to +85°C	X	X	O	O	O	O	O	O
-40°C to +105°C	X	X	X	X	X	Δ	O	O
-40°C to +125°C	X	X	X	X	X	X	Δ	O
-55°C to +125°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.

TAPE SPECIFICATIONS (mm)						REEL SPECIFICATIONS (mm)							
A	B	C	D	E	F	REEL QTY	G	H	I	J	K	L	M
Ø1.55	4.0	12.0	11.5	24.0	4.8	-T1 = 1,000	2.0	Ø13	Ø21	Ø80	Ø330	25.5	2.0

Available Options & Part Identification for Crystal Model FC4SD¹Sample PN: FC4SDCBMF25.0-T1

F	C4SD	C	B	M	F	25.0	-T1
Fox	<u>Model Number</u>	<u>Tolerance</u> B = ± 50 ppm C = ± 30ppm D = ± 25 ppm E = ± 20 ppm F = ± 15 ppm H = ± 10 ppm	<u>Stability</u> A = ± 100 ppm B = ± 50 ppm C = ± 30 ppm D = ± 25 ppm E = ± 20 ppm F = ± 15 ppm H = ± 10 ppm L = ± 5 ppm	<u>Load Capacitance²</u> A = Series E = 10pF G = 12pF J = 15pF K = 16pF L = 18pF M = 20pF R = 32pF	<u>Operating Temperature</u> 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	<u>Frequency (MHz)</u>	<u>Values Added Options</u> Blank = Bulk T1 = 1,000 pcs

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 us for assistance

Line	Marking	Reliability Test Conditions
1	FSXXXXXP F =Fox S = Product Code (HC49SLF). XXXXX = Frequency: 5 digits including decimal point. (8.000, 10.00, etc.) P = parallel resonance. (Blank=series.)	Please contact Abracon Quality Assurance department