

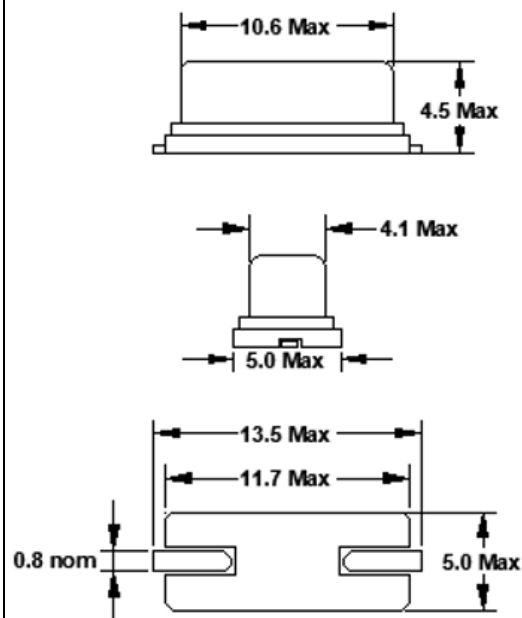
Features

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

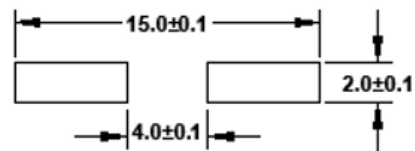
STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	3.200 ~ 80.000 MHz
Frequency Tolerance @ 25°C	(See options below)
Frequency Stability, ref 25°C	
Over Operating Temp Range	(See options below)
Temperature Range	
Operating (T_{OPR})	(See options below)
Storage (T_{STG})	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Shunt Capacitance (C_0)	7 pF
Load Capacitance (C_L)	(See options below)
Drive Level	0.5mW (100 μ W Typical)
Aging per year (@ 25°C)	± 3 PPM
Maximum Soldering Temp / Time	260°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*

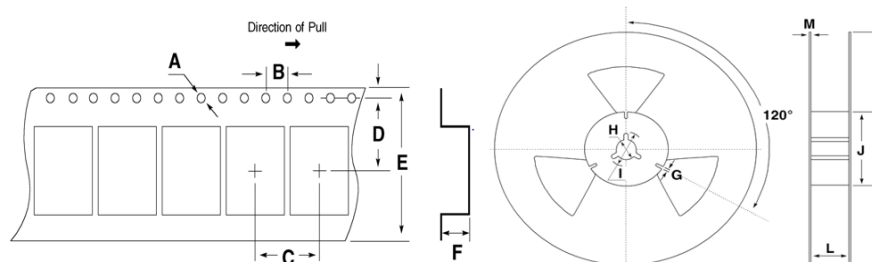
Operating Temperature	±5 PPM	±10 PPM	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM	±100 PPM
-10°C to +60°C	O	O	O	O	O	O	O	O
-20°C to +70°C	Δ	O	O	O	O	O	O	O
-40°C to +85°C	X	X	O	O	O	O	O	O
-40°C to +105°C	X	X	X	X	X	Δ	O	O
-40°C to +125°C	X	X	X	X	X	X	Δ	O
-55°C to +125°C	X	X	X	X	X	X	Δ	O

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

TAPE SPECIFICATIONS (mm)

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

REEL SPECIFICATIONS (mm)



Available Options & Part Identification for Crystal Model C4SD¹

Sample PN: **FC4SDCBMF25.0-T1**

F	C4SD	C	B	M	F	25.0	-T1
Fox	Model Number	Tolerance B = ±50ppm C = ±30ppm D = ±25ppm E = ±20ppm F = ±15ppm H = ±10ppm	Stability A = ±100 ppm B = ±50 ppm C = ±30 ppm D = ±25 ppm E = ±20 ppm F = ±15 ppm H = ±10 ppm L = ±5 ppm	Load Capacitance² A = Series E = 10pF G = 12pF J = 15pF 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)	Values Added Options 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

Reliability Test Conditions

Please contact Abracon Quality Assurance department

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

ABRACON:

[FC4SDCBMF27.0-T1](#) [FC4SDCBMF11.0-T1](#) [FC4SDCBMP8.0-T1](#) [FC4SDCBGM8.0-T1](#) [FC4SDCBKF24.0-T1](#)
[FC4SDCBMF20.0-T1](#) [FC4SDCBMF3.6864-T1](#) [FC4SDCBMF10.0-T1](#) [FC4SDCBMM7.3728-T1](#) [FC4SDCBMM20.0-T1](#)
[FC4SDCBMM16.0-T1](#) [FC4SDCBMM24.0-T1](#) [FC4SDCBMM25.0-T1](#) [FC4SDCBMF5.0-T1](#) [FC4SDCBMM24.576-T1](#)
[FC4SDCBMF8.192-T1](#) [FC4SDCBMM8.0-T1](#) [FC4SDCBMF12.0-T1](#) [FC4SDCBMF24.576-T1](#) [FC4SDCBMF8.0-T1](#)
[FC4SDCBMM10.0-T1](#) [FC4SDCBMM6.0-T1](#) [FC4SDCBMM12.0-T1](#) [FC4SDCBMF6.0-T1](#) [FC4SDCBMM4.0-T1](#)
[FC4SDCBMM3.6864-T1](#) [FC4SDCBMF7.3728-T1](#) [FC4SDCBMF9.8304-T1](#) [FC4SDCBMF14.7456-T1](#)
[FC4SDCBMF16.0-T1](#) [FC4SDCBMF18.432-T1](#) [FC4SDCBMF4.9152-T1](#) [FC4SDCBMF12.288-T1](#) [FC4SDCBMF4.0-T1](#)
[FC4SDCBMF24.0-T1](#) [FC4SDCBMF25.0-T1](#) [FC4SDCBMF11.0592-T1](#) [FC4SDCBMM14.31818-T1](#)
[FC4SDCBMF14.31818-T1](#) [FC4SDCBMF19.6608-T1](#) [FC4SDCBMF22.1184-T1](#) [FC4SDCBLF3.579545-T1](#)
[FC4SDCBGF4.194304-T1](#) [FC4SDCBGC18.432-T1](#)