

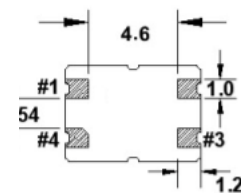
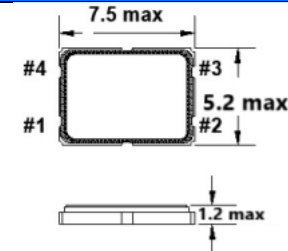
## Features

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

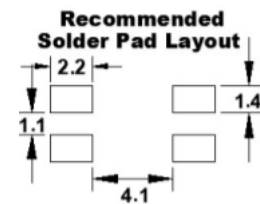
STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	6.000 ~ 50.000 MHz
Frequency Tolerance @ 25°C	(See options below)
Frequency Stability, ref 25°C	(See options below)
Temperature Range	
Operating ( $T_{OPR}$ )	(See options below)
Storage ( $T_{STG}$ )	$-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$
Shunt Capacitance ( $C_0$ )	5 pF
Load Capacitance ( $C_L$ )	(See options below)
Drive Level	
6.000 ~ 50.000 MHz	0.5 mW
Aging per year (@ 25°C)	$\pm 3$ PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL) per J-STD-033	Not Applicable
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR $\Omega$
6.000 ~ 9.999999	Fundamental	80
10.000 ~ 15.999999	Fundamental	50
16.000 ~ 31.999999	Fundamental	40
32.000 ~ 39.999999	Fundamental	30
40.000 ~ 50.000000	Fundamental	20

## DIMENSIONS / MECHANICAL SPECIFICATIONS



Dimensions in mm



### Pin Connections

#4 - Lid/Gnd #3 - Crystal  
#1 - Crystal #2 - Lid/Gnd

### Note:

1./Due to material availability, the Chamfer could be located on pin#1, or 4. Chamfer shape may vary.

2./Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary. Cut corner/rounded pad not shown. Crystal has no polarity and cannot be placed incorrectly; pin numbers are for reference only.

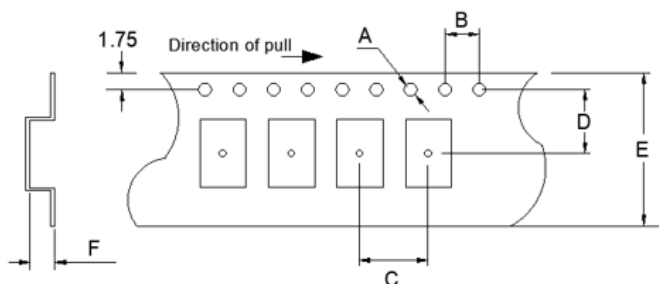
## AVAILABLE OPERATING TEMPERATURES AND STABILITIES\*

Operating Temperature	±5 PPM	±10 PPM	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM	±100 PPM
-0°C ~ +70°C	X	O	O	O	O	O	O	N/A
-10°C ~ +60°C	O	O	O	O	O	O	O	N/A
-10°C ~ +70°C	X	O	O	O	O	O	O	N/A
-20°C ~ +70°C	X	O	O	O	O	O	O	N/A
-30°C ~ +85°C	X	X	O	O	O	O	O	N/A
-40°C ~ +85°C	X	X	O	O	O	O	O	N/A
-40°C ~ +105°C	X	X	X	X	X	X	O	O
-40°C ~ +125°C	X	X	X	X	X	X	O	O
-55°C ~ +125°C	X	X	X	X	X	X	O	O

Key: O = Available, X = Not Available, N/A = Not Applicable

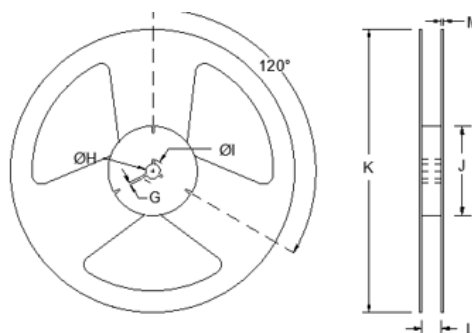
## TAPE SPECIFICATIONS (mm)

A	B	C	D	E	F	REEL QTY
ø1.55	4.0	8.0	7.5	16.0	1.7	-T1 = 1,000 -T2 = 2,000



## REEL SPECIFICATIONS (mm)

G	H	I	J	K	L	M
2.0	ø13	ø21	ø60 ø80	ø180 ø250	17.5	2.0



Available Options & Part Identification for Crystal Model C7BS <sup>1</sup>							
Sample PN: <u>FC7BSBBMD25.0-T1</u>							
F	C7BS	B	B	M	D	25.0	-T1
<u>Fox</u>	<u>Model Number</u>	<u>Tolerance</u> B = $\pm 50$ PPM C = $\pm 30$ PPM D = $\pm 25$ PPM E = $\pm 20$ PPM F = $\pm 15$ PPM H = $\pm 10$ PPM	<u>Stability</u> A = $\pm 100$ PPM B = $\pm 50$ PPM C = $\pm 30$ PPM D = $\pm 25$ PPM E = $\pm 20$ PPM F = $\pm 15$ PPM H = $\pm 10$ PPM L = $\pm 5$ PPM	<u>Load Capacitance</u> <sup>2</sup> See table below	<u>Operating Temperature</u> C = 0 to +70°C D = -10 to +60°C E = -10 to +70°C F = -20 to +70°C K = -30 to +85°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 T2 = 2,000 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

Load Capacitance Options		
A=Series	J=15pF	R=32pF
B=6pF	K=16pF	S=33pF
C=4pF	L=18pF	T=50pF
D=8pF	M=20pF	V=7pF
E=10pF	N=22pF	W=9pF
G=12pF	P=27pF	X=14pF
U=13pF	Q=30pF	Y=19pF

Reliability Test Conditions
Please contact Abracon Quality Assurance department

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