

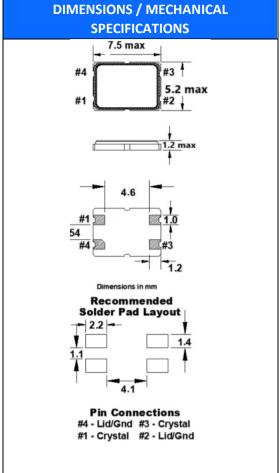
# (Former FD)

#### **Features**

- Tolerances down to ±10 PPM
- Stabilities down to ±5 PPM
- Operating Temperature Range to -55°C ~ +125°

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 <sub>OPR</sub> )	(See options below)					
Storage (T <sub>STG</sub> )	-55°C ~ +125°C					
Shunt Capacitance (C <sub>0</sub> )	5 pF					
Load Capacitance (C <sub>L</sub> )	(See options below)					
Drive Level						
6.000 ~ 50.000 MHz	0.5 mW					
Aging per year (@ 25°C)	±3 PPM					
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2					
Moisture Sensitivity Level (MSL) per	Not Applicable					
J-STD-033						
Termination Finish	Au over Ni					
Seal Method	Seam					
Lead (Pb) Free	Yes					
RoHS Compliant	Yes					

Frequency Range (MHz)	<b>Operating Mode</b>	Max ESR Ω
6.000 ~ 9.999999	Fundamental	80
10.000 ~ 15.999999	Fundamental	50
16.000 ~ 31.999999	Fundamental	40
32.000 ~ 39.99999	Fundamental	30
40.000 ~ 50.000000	Fundamental	20



#### Note:

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

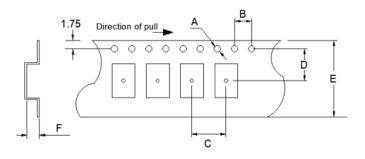
2./Dimensional drawing is for reference to critical specifications defined by size measurements. Certain non-critical visual attributes, such as side castellations, etc. may vary. Cut corner/rounded pad not shown. Crystal has no polarity and cannot be placed incorrectly; pin numbers are for reference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



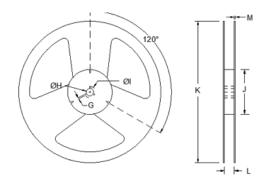
(Former FD)

A	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	Х	0	0	0	0	0	0	N/A
-10°C ~+60°C	0	0	0	0	0	0	0	N/A
-10°C ~ +70°C	Х	0	0	0	0	0	0	N/A
-20°C ~ +70°C	Х	0	0	0	0	0	0	N/A
-30°C ~+85°C	Х	Х	0	0	0	0	0	N/A
-40°C ~ +85°C	Х	Х	0	0	0	0	0	N/A
-40°C ~ +105°C	Х	Х	Χ	Х	Х	Х	0	0
-40°C ~ +125°C	Х	Х	Х	Х	Х	Х	0	0
-55°C ~+125°C	Х	Х	Χ	Х	Х	Х	0	0
Key: O = Available, X = Not Available, N/A = Not Applicable								

TAPE SPECIFICATIONS (mm)						
Α	В	С	D	E	F	REEL QTY
ø1.55	4.0	8.0	7.5	16.0	1.7	-T1 = 1,000
Ø1.55	4.0	8.0	7.5		1.7	-T2 = 2,000



REEL SPECIFICATIONS (mm)						
G	Н	- 1	J	K	L	М
2.0	Ø13	Ø21	Ø60 Ø80	Ø180	17.5	2.0
2.0	2.0 013		Ø80	Ø250	17.5	2.0





# (Former FD)

# 7mm x 5mm





#### Available Options & Part Identification for Crystal Model C7BS<sup>1</sup> Sample PN: FC7BSBBMD25.0-T1 -T1 F **C7BS** В В D 25.0 M **Values Added Fox** Model Tolerance Stability Load Operating **Frequency** B = ±50 PPM $A = \pm 100 PPM$ Number Capacitance<sup>2</sup> **Temperature** (MHz) **Options** $B = \pm 50 PPM$ $C = \pm 30 PPM$ See table below $C = 0 \text{ to } +70^{\circ}C$ Blank = Bulk $D = \pm 25 PPM$ $C = \pm 30 PPM$ $D = -10 \text{ to } +60^{\circ}\text{C}$ T1 = 1,000 pcs $E = \pm 20 PPM$ $D = \pm 25 PPM$ $E = -10 \text{ to } +70^{\circ}\text{C}$ T2 = 2,000 pcs $F = \pm 15 PPM$ $E = \pm 20 PPM$ $F = -20 \text{ to } +70^{\circ}\text{C}$ $H = \pm 10 PPM$ $F = \pm 15 PPM$ $K = -30 \text{ to } +85^{\circ}\text{C}$ $H = \pm 10 PPM$ $M = -40 \text{ to } +85^{\circ}\text{C}$ $L = \pm 5 PPM$ $P = -40 \text{ to } +105^{\circ}\text{C}$ $I = -40 \text{ to } +125^{\circ}\text{C}$ T = -55 to +125°C

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

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

<sup>2</sup> Listed load capacitances represent the most commonly used. Other load capacitances are available. Contact us for assistance