

FC7BS

(Former FD)

7mm x 5mm
Ceramic SMD Crystal



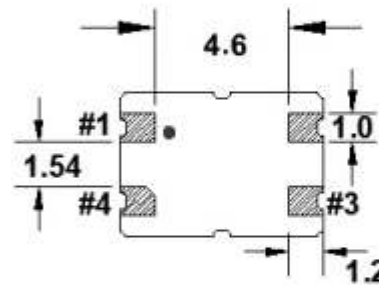
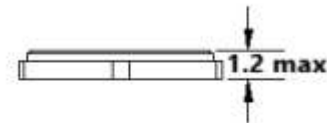
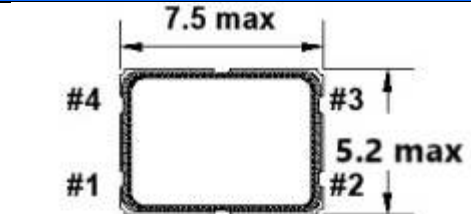
Features

- Tolerances down to ± 10 PPM
- Stabilities down to ± 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)	± 3 PPM
Maximum Soldering Temp / Time	$260^{\circ}\text{C} / 10$ 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

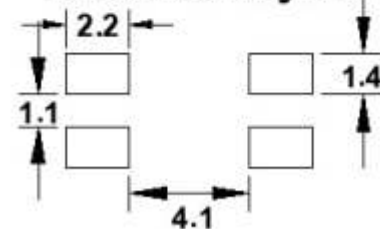
Frequency Range (MHz)	Operating Mode	Max ESR Ω
6.000 ~ 9.999999	Fundamental	80
10.000 ~ 15.999999	Fundamental	50
16.000 ~ 31.999999	Fundamental	40
32.000 ~ 39.999999	Fundamental	30
40.000 ~ 50.000000	Fundamental	20

DIMENSIONS / MECHANICAL SPECIFICATIONS



Dimensions in mm

Recommended Solder Pad Layout



Pin Connections

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

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. Cut corner/rounded pad not shown. Crystal has no polarity and cannot be placed incorrectly; pin numbers are for reference only.

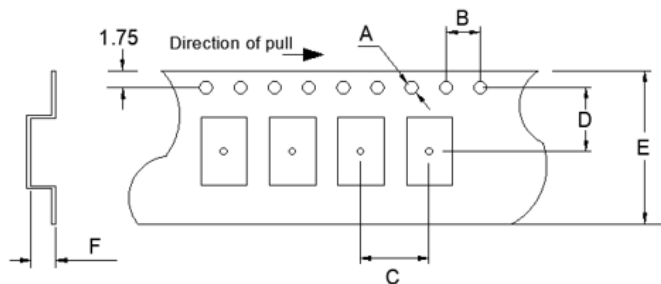
AVAILABLE OPERATING TEMPERATURES AND STABILITIES*

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 ~ +155°C	X	X	X	X	X	X	O	O

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

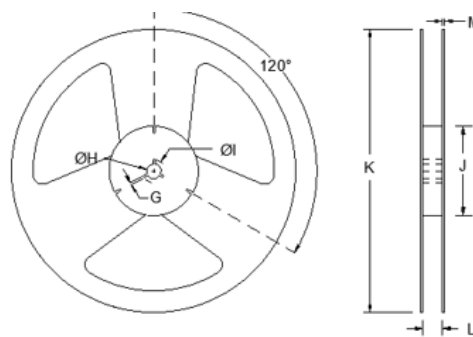
TAPE SPECIFICATIONS (mm)

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 C7BS¹

Sample PN: FC7BSBBMD25.0-T1

F	C7BS	B	B	M	D	25.0	-T1
<u>Fox</u>	<u>Model Number</u>	<u>Tolerance</u>	<u>Stability</u>	<u>Load Capacitance</u> ²	<u>Operating Temperature</u>	<u>Frequency (MHz)</u>	<u>Values Added Options</u>
		B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM	A = ±100 PPM B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM L = ±5 PPM	E = 10pF G = 12pF J = 15pF K = 16pF L = 18pF M = 20pF	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		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

Reliability Test Conditions

Please contact Abracon Quality Assurance department