

# FC7BS

(Former FD)

7mm x 5mm  
Ceramic SMD Crystal



## 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 ( $C_o$ )	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
<p>The drawing includes three views: a top view showing a square package with a maximum side length of 7.5 mm and a maximum height of 5.15 mm; a side view showing a maximum thickness of 1.1 mm; and a detailed solder pad layout view showing a central square with a side length of 4.6 mm, four pads (#1, #2, #3, #4) with a width of 1.54 mm and a height of 1.1 mm, and a distance of 4.1 mm between the pads.</p> <p><b>Recommended Solder Pad Layout</b></p> <p><b>Dimensions in mm</b></p> <p><b>Pin Connections</b>                      #4 - Lid/Gnd #3 - Crystal                      #1 - Crystal #2 - Lid/Gnd</p>
<p>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.</p>

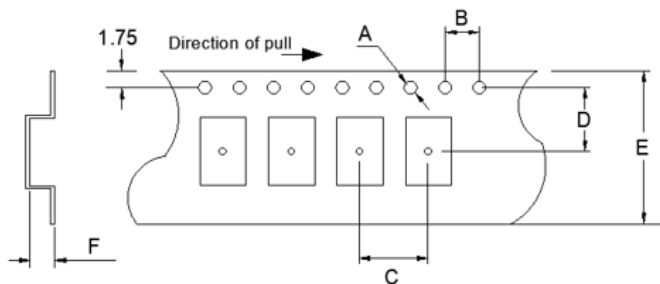
### AVAILABLE OPERATING TEMPERATURES AND STABILITIES\*

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

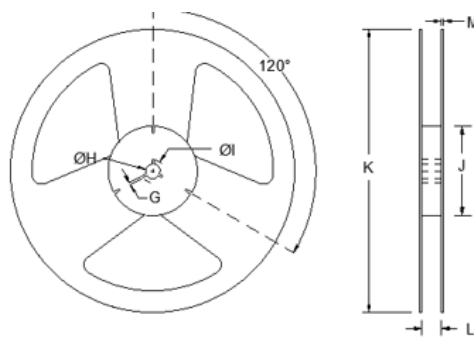
### TAPE SPECIFICATIONS (mm)

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	ø80	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 = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM	<u>Stability</u> A = ±100 PPM <b>B = ±50 PPM</b> C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM L = ±5 PPM	<u>Load Capacitance<sup>2</sup></u> E = 10pF G = 12pF J = 15pF K = 16pF L = 18pF <b>M = 20pF</b>	<u>Operating Temperature</u> C = 0 to +70°C <b>D = -10 to +60°C</b> 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

Reliability Test Conditions
Please contact Abracon Quality Assurance department

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Crystals](#) category:*

*Click to view products by [Abracon](#) manufacturer:*

Other Similar products are found below :

[MC405 32.0000K-R3:PURE SN](#) [7B-27.000MBBK-T](#) [MP1-8.0 99-BU](#) [9B-15.360MBBK-B](#) [PTX-A2JM-10.000M](#) [9C-7.680MBBK-T](#) [H10S-12.000-18-EXT-TR](#) [R38-32.768-12.5-5PPM-NPB](#) [BTD1062E05A-513](#) [21U15A-21.4MHZ](#) [RTX-781DF1-S-20.950](#) [LFXTAL066198Cutt](#) [9C-14.31818MBBK-T](#) [A-11.000MHZ-27](#) [SPT2A-.032768B](#) [SPT2A.032768G](#) [SSPT7F-9PF20-R](#) [FX325BS-38.88EEM1201](#) [MP-1-25.000MHZ-3L](#) [MP-1-6.000MHZ](#) [LFXTAL065253Cutt](#) [LFXTAL066431Cutt](#) [XT9S20ANA14M7456](#) [XT9SNLANA16M](#) [646G-24-2](#) [7B-30.000MBBK-T](#) [6504-202-1501](#) [6526-202-1501](#) [BTJ120E02C](#) [SG636PCE-20.000MC](#) [3404](#) [C1E-24.000-7-2020-R](#) [C1E-19.200-12-1530-X-R](#) [C1E-16.000-12-1530-X-R](#) [FL5000014](#) [EUCA18-3.1872M](#) [425F35E027M0000](#) [17196](#) [MS3V-T1R-32.768kHz-7pF-20PPM-TA-QC-Au](#) [VXM7-1C1-16M000](#) [MS1V-T1K-32.768kHz-10pF-20PPM-TA-QC-Au](#) [MS1V-T1K-32.768kHz-12.5pF-20PPM-TA-QC-Au](#) [MS3V-T1R-32.768kHz-9pF-20PPM-TA-QC-Au](#) [17000](#) [17301](#) [16875](#) [ECS-80-18-30B-JEM-TR](#) [ECS-100-10-30B-CKL-TR](#) [MS1V-T1K-32.768kHz-6pF-20PPM-TA-QC-Au](#)