



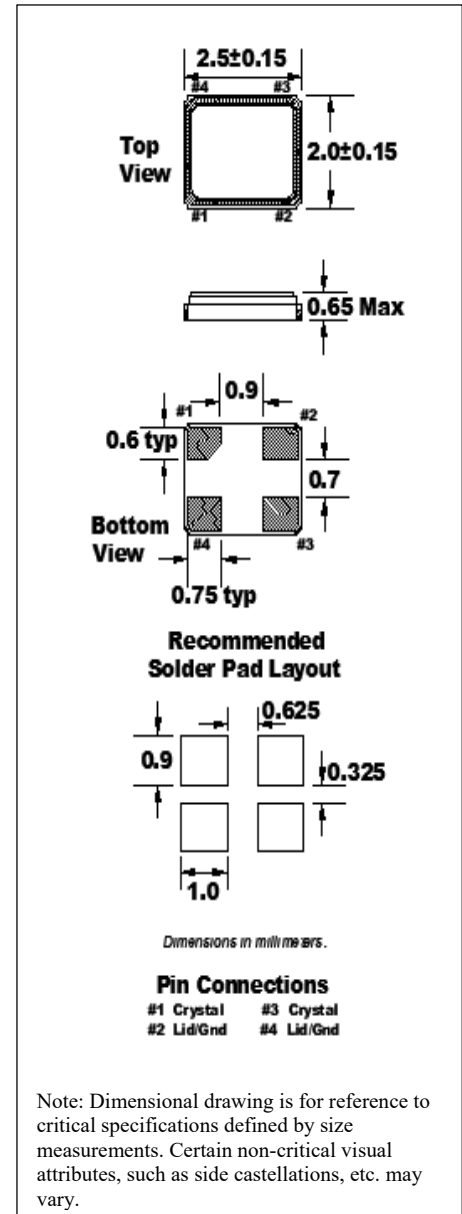
2.5 x 2.0mm SMD Crystal

C2BS
(former FX252BS)
DATASHEET

- Tolerances down to 10 PPM
- Stabilities down to 10 PPM

• C2BS STANDARD SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	12.000 ~ 80.000 MHz
Frequency Tolerance @ 25°C	(See options on page 2)
Frequency Stability, ref @ 25°C Over Operating Temp Range	(See options below)
Temperature Range Operating (T _{OPR}) Storage (T _{STG})	(See options below) -55°C ~ +125°C
Shunt Capacitance (C ₀)	3 pF
Load Capacitance (C _L)	(See options on page 2)
Drive Level	100 μW
Aging per year	±5 PPM
Reflow Soldering Temperature	260°C x 10 Seconds x 2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS / REACH Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
12.000 ~ 13.999999	Fundamental	200
14.000 ~ 15.999999	Fundamental	150
16.000 ~ 19.999999	Fundamental	90
20.000 ~ 23.999999	Fundamental	70
24.000 ~ 24.999999	Fundamental	60
25.000 ~ 44.999999	Fundamental	50
45.000 ~ 80.000	Fundamental	40



• Available Operating Temperatures and Stabilities*

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

Key: O=Available, X=Not Available N/A=Not applicable *Does not imply a stocked part.

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	Drawing Number: 100934		Size: A
	Part Number:		Cage: 61429
	Draftsperson: BEC	Approved: MAJ	Revision Date: 06/3/2019

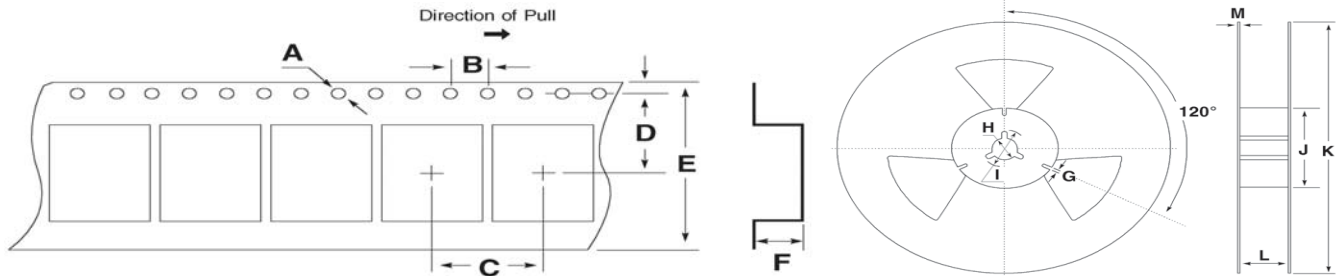


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• TAPE SPECIFICATIONS (millimeters)						
A	B	C	D	E	F	Reel QTY
Ø1.55	4.0	4.0	3.5	8.0	0.65	-T3 = 3,000 -T2 = 2,000 -T1 = 1,000

• REEL SPECIFICATIONS (millimeters)						
G	H	I	J	K	L	M
2.0	Ø13	Ø21	Ø60	Ø180	9.0	2.0



Available Options & Part Identification for Ceramic SMD Crystal C2BS¹ **F C2BS C C D M 24.0**

F	C2BS	C	C	D	M	24.0
FOX	Model Number	Tolerance	Stability	Load Capacitance ²	Operating Temperature	Frequency (MHz)
		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	D = 8pF W = 9pF E = 10pF G = 12pF 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	

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

²Listed load capacitances represent the most commonly used. Other load capacitances are available. Contact Fox Technical Support for assistance



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For datasheet type definitions and a glossary of common terms, visit <http://www.foxonline.com/tgcrystals.html>.

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