



2.0x1.6mm Ceramic SMD Crystal C1BS

(former FX216B)

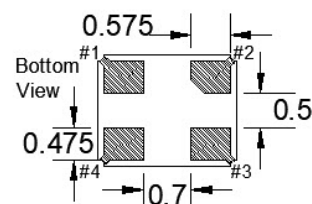
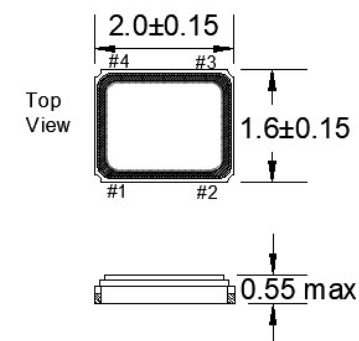
DATASHEET

- Tolerances down to 10 PPM
- Stabilities down to 10 PPM
- Temperature Ranges as wide as -40°C to +85°C

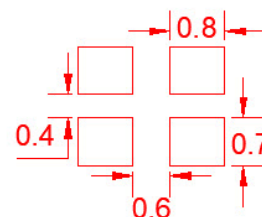
• SPECIFICATIONS

PARAMETERS	MAX (unless otherwise noted)
Frequency Range	16.000 ~ 64.000 MHz
Frequency Tolerance @ 25°C	(See options on page 2)
Frequency Stability, ref @ 25°C	(See options below)
Temperature Range	
Operating (TOPR)	(See options below)
Storage (TSTG)	-55°C ~ +125°C
Shunt Capacitance (Co)	3 pF
Load Capacitance (CL)	(See options on page 2)
Drive Level	0.1 mW
Aging per year	±5 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds x2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au
Seal Method	Seam Seal
Lead (Pb) Free	Yes
RoHS/REACH Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
16.000 ~ 19.999999	Fundamental	200
20.000 ~ 23.999999	Fundamental	120
24.000 ~ 29.999999	Fundamental	100
30.000 ~ 39.999999	Fundamental	80
40.000 ~ 64.000	Fundamental	60



Recommended Solder Pad Layout



Dimensions are in millimeters.

Pin Connections

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

• Available Operating Temperatures and Stabilities*

Operating Temperature	±10 PPM	±15 PPM	±20 PPM	±25 PPM	±30 PPM	±50 PPM
-10 ~ +60°C	O	O	O	O	O	O
-20 ~ +70°C	O	O	O	O	O	O
-40 ~ +85°C	X	O	O	O	O	O

Key: O=Available, X=Not Available, Δ=Consult Fox Technical Support

*Does not imply a stocked part.

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.



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Title / Description: C1BS SERIES STANDARD SPECIFICATIONS

Drawing Number: C1BS-DOC-1

Size: A

Part Number:

Cage: 61429

Draftsperson: MAJ

Approved: BEC

Revision Date: 10/22/2019



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(former FX216B)

DATASHEET

• TAPE SPECIFICATIONS (millimeters)							• REEL SPECIFICATIONS (millimeters)						
A	B	C	D	E	F	STD Reel QTY	G	H	I	J	K	L	M
Ø1.55	4.0	4.0	3.5	8.0	0.65	-T3 = 3,000 default -T2 = 2,000 -T1 = 1,000	2.0	Ø13.0	21.0	60.0	180.0	9.0	2.0

Available Options & Part Identification for Crystal Model C1BS¹

F C1BS E E E M 32.0

F	C1BS	E	E	E	M	32.0
<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> B = 50 PPM C = 30 PPM D = 25 PPM E = 20 PPM F = 15 PPM H = 10 PPM	<u>Load Capacitance²</u> V = 7 pF D = 8 pF W = 9 pF E = 10 pF G = 12 pF J = 15 pF L = 18 pF M = 20 pF	<u>Operating Temperature</u> D = -10 ~ +60 °C F = -20 ~ +70 °C M = -40 ~ +85 °C	<u>Frequency (MHz)</u>

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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	Drawing Number: C1BS-DOC-1		Size: A	
	Part Number:		Cage: 61429	
	Draftsperson: MAJ	Approved: BEC	Revision Date: 10/22/2019	