



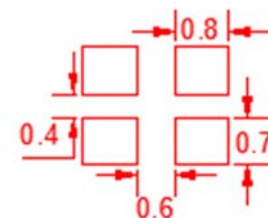
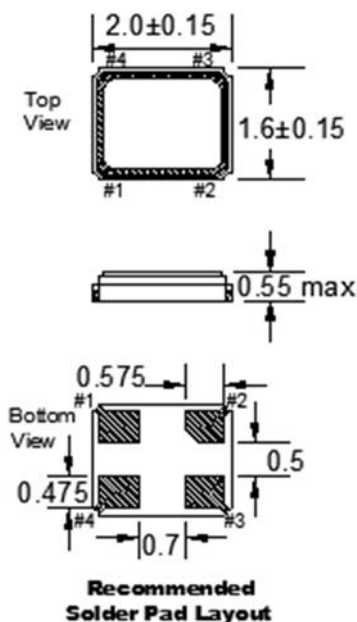
# 2.0 x 1.6mm Auto Grade Crystal

# C1BA (former FXA2016B) DATASHEET

- AEC Q200 Qualified
- IATF-16949 QMS
- Tolerances down to  $\pm 10$  PPM
- Stabilities down to  $\pm 20$  PPM

• SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	16.000 ~ 54.000 MHz
Frequency Tolerance @ 25°C	(See options on page 2)
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 ~ +150°C
Shunt Capacitance (C <sub>0</sub> )	3pF
Load Capacitance (C <sub>L</sub> )	(See options on page 2)
Drive Level	100µW
Aging per year	$\pm 5$ PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL)	1
Termination Finish	Au over Ni
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS Compliant	Yes

Frequency Range (MHz)	Operating Mode	Max ESR $\Omega$
16.000 ~ 19.199999	Fundamental	200
19.200 ~ 25.999999	Fundamental	100
26.000 ~ 35.999999	Fundamental	80
36.000 ~ 54.000	Fundamental	60



Dimensions are in millimeters.

### Pin Connections

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

Note: Dimensional drawing is for reference to critical specifications defined by size measurements.

### •Available Operating Temperatures and Stabilities

Operating Temperature	$\pm 20$ PPM	$\pm 25$ PPM	$\pm 30$ PPM	$\pm 50$ PPM	$\pm 100$ PPM
-40 ~ +85°C	O	O	O	O	O
-40 ~ +105°C	X	X	O	O	O
-40 ~ +125°C	X	X	X	O	O
-55 ~ +125°C	X	X	X	O	O

Key: O=Available, X=Not Available,  
¹Does not imply stocked part.

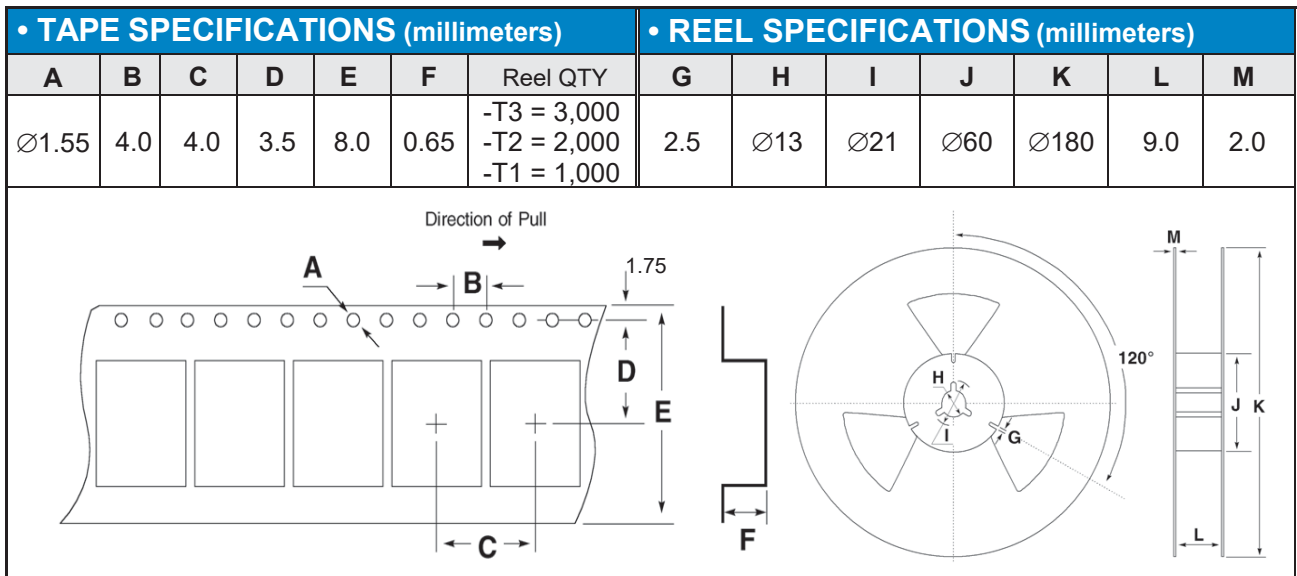
Reference / Comments	Title / Description: C1BA SERIES STANDARD SPECIFICATIONS		
 © Copyright 2019 Fox Electronics. All rights reserved	Drawing Number: C1BA-DOC-2		Size: A
	Part Number:		Cage: 61429
	Draftsperson: BEC		Approved: MAJ
			Date: 06/06/2019



# 2.0 x 1.6mm Auto Grade Crystal

# C1BA

(former FXA2016B)  
DATASHEET



## Available Options & Part Identification for Automotive Crystal Model C1BA<sup>1</sup>

### **F C1BA B C V I 40.0**

F	C1BA	B	C	V	I	40.0
FOX	Model Number	Tolerance	Stability	Load Capacitance <sup>2</sup>	Operating Temperature	Frequency (MHz)
		<b>B = ±50 PPM</b> C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM	A = ±100 PPM B = ±50 PPM <b>C = ±30 PPM</b> D = ±25 PPM E = ±20 PPM	<b>V=7pF</b> D=8pF E=10pF G=12pF J=15pF K=16pF L=18pF M=20pF	M = -40 to +85°C P = -40 to +105°C <b>I = -40 to +125°C</b> T = -55 to +125°C	

<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 Fox Technical Support for assistance



Corporate Headquarters  
5570 Enterprise Parkway  
Fort Myers, FL 33905  
<http://www.FOXONLINE.com>

Sales  
1-888-GET-2-FOX (1-888-438-2369) or  
1-239-693-0099  
<http://www.FOXONLINE.com/repdisty>

Tech Support  
<http://www.FOXONLINE.com/email>

**PRODUCT USE:** Fox Electronics reserves the right to modify the products and/or specifications described herein at any time and at Fox Electronics' sole discretion. All information in this document, including descriptions of product features and performance, is subject to change without notice. Performance specifications and the operating parameters of the described products are determined in the independent state and are not guaranteed to perform the same way when installed in customer products. The information contained herein is provided without representation or warranty of any kind, whether express or implied, including, but not limited to, the suitability of Fox Electronics' products for any particular purpose, an implied warranty of merchantability, or non-infringement of the intellectual property rights of others. This document is presented only as a guide and does not convey any license under intellectual property rights of Fox Electronics or any third parties.

Fox Electronics' products are not intended for use in applications involving extreme environmental conditions or in life support systems or similar devices where the failure or malfunction of a Fox Electronics product can be reasonably expected to significantly affect the health or safety of users. Anyone using a Fox Electronics product in such a manner does so at their own risk, absent an express, written agreement by Fox Electronics.

Fox Electronics and the Fox logo are registered trademarks of Fox Electronics. Product specification is subject to change without notice. Other trademarks and service marks used herein, including protected names, logos and designs, are the property of Fox Electronics or their respective third-party owners.

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

### Reference / Comments

### Title / Description: C1BA SERIES STANDARD SPECIFICATIONS



© Copyright 2019 Fox Electronics. All rights reserved

Drawing Number: C1BA-DOC-2

Size: A

Part Number:

Cage: 61429

Draftsperson: BEC

Approved: MAJ

Date: 06/06/2019