



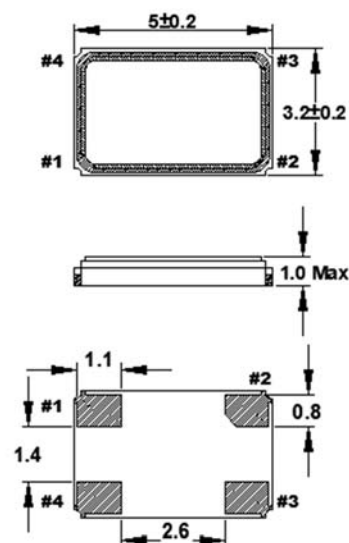
# 5 x 3.2mm Auto Grade Crystal

## C5BA (former FXA5032B) DATASHEET

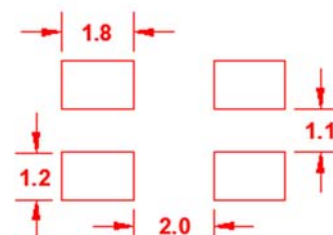
- AEC Q200 Qualified
- IATF-16949 QMS
- Tolerances down to  $\pm 10$  PPM
- Stabilities down to  $\pm 20$  PPM

• SPECIFICATIONS	
PARAMETERS	MAX (unless otherwise noted)
Frequency Range	8.000 ~ 133.000 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> )	7pF
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 $\Omega$
8.000 ~ 9.749999	Fundamental	70
9.750 ~ 9.999999	Fundamental	60
10.000 ~ 11.999999	Fundamental	45
12.000 ~ 15.999999	Fundamental	35
16.000 ~ 19.999999	Fundamental	30
20.000 ~ 49.999999	Fundamental	25
50.000 ~ 54.000	Fundamental	20
40.000 ~ 79.999999	3 <sup>RD</sup> OT	100
80.000 ~ 99.999999	3 <sup>RD</sup> OT	80
100.000 ~ 133.000	3 <sup>RD</sup> OT	60



### Recommended Solder Pad Layout



Dimensions in mm

### Pin Connections

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

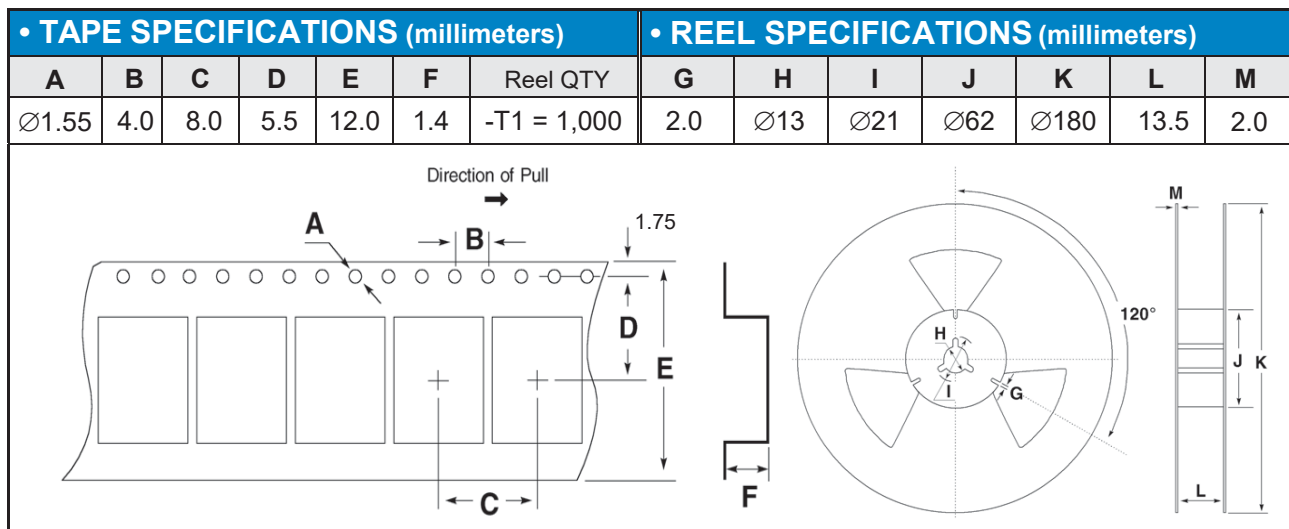
Key: O=Available, X=Not Available,  
 'Does not imply stocked part.

Reference / Comments	Title / Description: C5BA SERIES STANDARD SPECIFICATIONS		
 © Copyright 2019 Fox Electronics. All rights reserved	Drawing Number: C5BA-DOC-2		Size: A
	Part Number:		Cage: 61429
	Draftsperson: BEC	Approved: MAJ	Date: 06/04/2019



# 5 x 3.2mm Auto Grade Crystal

**C5BA**  
(former FXA5032B)  
**DATASHEET**



## Available Options & Part Identification for Automotive Crystal Model C5BA<sup>1</sup>

### F C5BA B C V I 40.0

F	C5BA	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



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Reference / Comments

Title / Description: C5BA SERIES STANDARD SPECIFICATIONS



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Drawing Number: C5BA-DOC-2

Size: A

Part Number:

Cage: 61429

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Date: 06/04/2019

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