



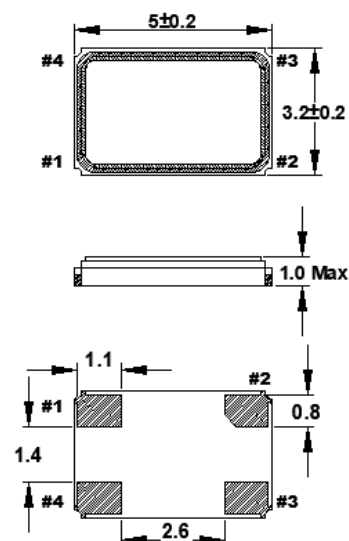
5 x 3.2mm Auto Grade Crystal

C5BA
(former FXA5032B)
DATASHEET

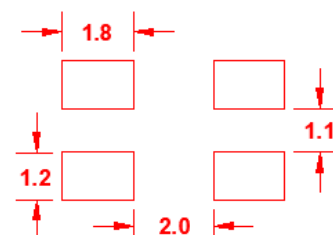
- AEC Q200 Qualified
- IATF-16949 QMS
- Tolerances down to ± 10 PPM
- Stabilities down to ± 20 PPM

• 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 _{OPR})	See options below
Storage (T _{STG})	-55°C ~ +150°C
Shunt Capacitance (C ₀)	7 pF
Load Capacitance (C _L)	(See options on page 2)
Drive Level	100 μ W
Aging per year	± 5 PPM
Maximum Soldering Temp / Time	260°C / 10 Seconds x 2
Moisture Sensitivity Level (MSL) per J-STD-033	N/A
Termination Finish	Au (0.3~1 μ m) over Ni (1.27~8.89 μ m)
Seal Method	Seam
Lead (Pb) Free	Yes
RoHS Compliant	Yes, no exemptions
REACH Compliant (latest version)	Yes

Frequency Range (MHz)	Operating Mode	Max ESR Ω
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 RD OT	100
80.000 ~ 99.999999	3 RD OT	80
100.000 ~ 133.000	3 RD 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	± 20 PPM	± 25 PPM	± 30 PPM	± 50 PPM	± 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

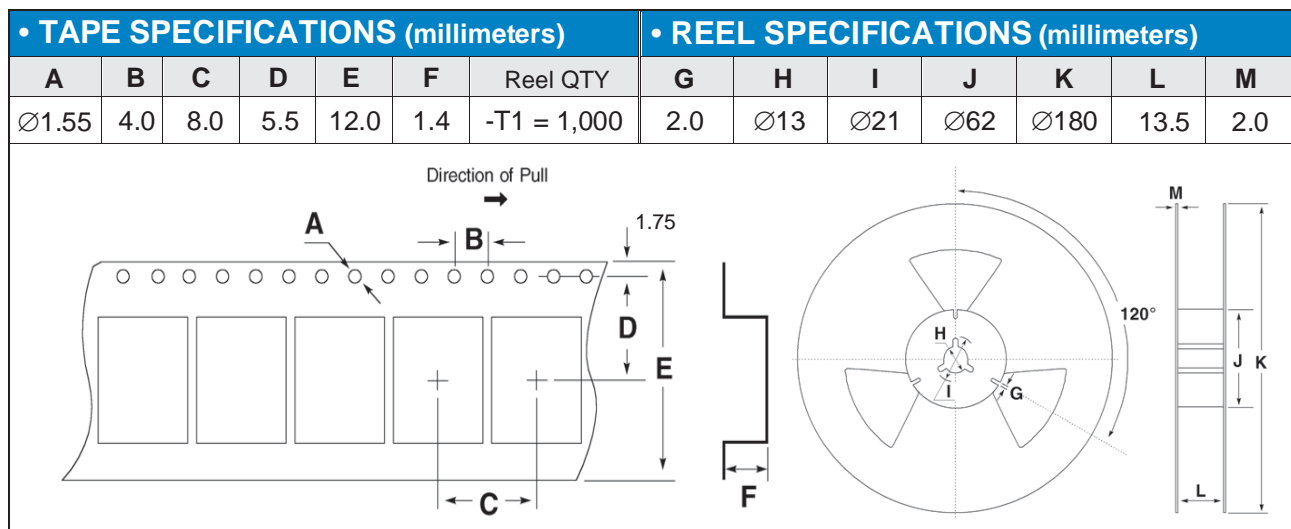
Key: O=Available, X=Not Available,

Reference / Comments	Title / Description: C5BA SERIES STANDARD SPECIFICATIONS	
7/21/2020 – Added thickness info to termination metals, adjusted MSL info to include J-STD-033 and N/A	Drawing Number: C5BA-DOC-1	Size: A
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	Draftsperson: BEC	Approved: MAJ
		Date: 07/21/2020



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Available Options & Part Identification for Automotive Crystal Model C5BA¹

F C5BA B C V I 40.0

F	C5BA	B	C	V	I	40.0
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	V=7pF D=8pF E=10pF G=12pF J=15pF K=16pF L=18pF M=20pF	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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