

Features

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

STANDARD SPECIFICATIONS	
PARAMETERS	MAX (Unless otherwise noted)
Frequency Range	12.000 ~ 54.000 MHz
Frequency Tolerance @ 25°C	(See options below)
Frequency Stability, ref 25°C	(See options below)
Temperature Range	
Operating (T_{OPR})	(See options below)
Storage (T_{STG})	-55°C ~ +105°C
Shunt Capacitance (C_0)	3 pF
Load Capacitance (C_L)	(See options below)
Drive Level	100 μ W
Aging per year (@ 25°C)	± 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
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 ~ 54.000	Fundamental	40

DIMENSIONS / MECHANICAL SPECIFICATIONS	
<p>Recommended Solder Pad Layout</p>	
<p><i>Dimensions in millimeters.</i></p> <p>Pin Connections #1 Crystal #3 Crystal #2 Lid/Gnd #4 Lid/Gnd</p>	
<p>Note: Dimensional drawing is for reference to critical specifications defined by size measurements.</p>	

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					

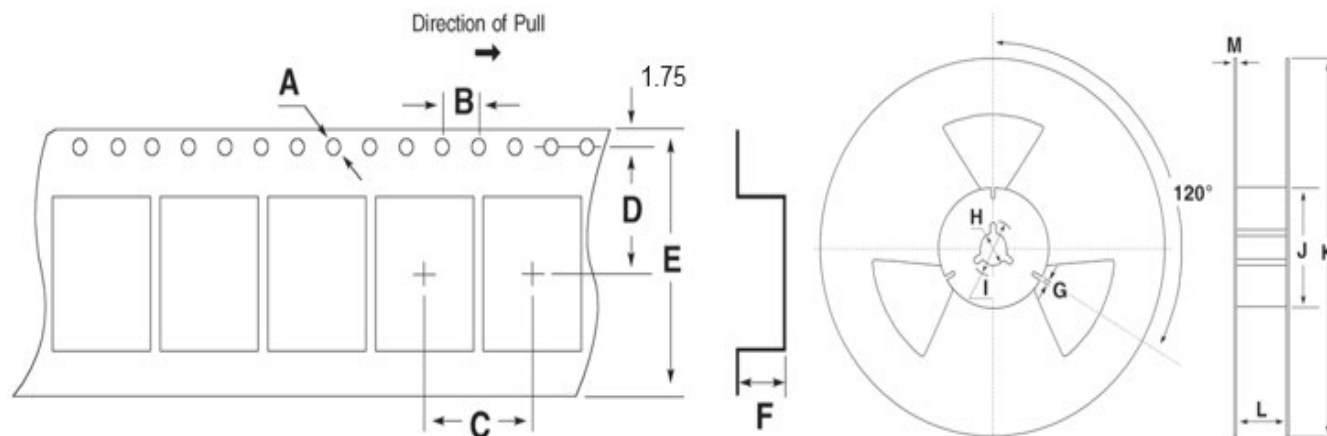
FC2BA

(Former FXA2520B)

2.5mm x 2.0mm
Auto Grade Crystal



TAPE SPECIFICATIONS (mm)							REEL SPECIFICATIONS (mm)						
A	B	C	D	E	F	REEL QTY	G	H	I	J	K	L	M
ø1.55	4.0	4.0	3.5	8.0	0.8	-T3 = 3,000 -T2 = 2,000 -T1 = 1,000	2.5	ø13	ø21	ø60	ø180	9.0	2.0



Available Options & Part Identification for SMD Crystal C2BA¹

Sample PN: FC2BABCVI40.0-T3

F	C2BA	B	C	V	I	40.0	-T3
Fox	Model Number	Tolerance B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM F = ±15 PPM H = ±10 PPM	Stability A = ±100 PPM B = ±50 PPM C = ±30 PPM D = ±25 PPM E = ±20 PPM	Load Capacitance² V = 7pF D = 8pF E = 10pF G = 12pF J = 15pF K = 16pF L = 18pF M = 20pF	Operating Temperature M = -40 to +85°C P = -40 to +105°C I = -40 to +125°C T = -55 to +125°C	Frequency (MHz)	Values Added Options Blank = Bulk T1 = 1,000 pcs T2 = 2,000 pcs T3 = 3,000 pcs

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

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

Reliability Test Conditions

Please contact Abracon Quality Assurance department