



# 2.0 x 1.6mm Auto Grade Crystal C1BA

(former FXA2016B)

## DATASHEET

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### • SPECIFICATIONS

| PARAMETERS                       | MAX (unless otherwise noted)                 |
|----------------------------------|--|
| Frequency Range                  | 20.000 ~ 50.000 MHz                          |
| Frequency Tolerance @ 25°C       | ±10 PPM ~ ±50 PPM<br>(See options on page 2) |
| Frequency Stability, ref @ 25°C  | ±20 PPM ~ ±100 PPM<br>(See options below)    |
| Temperature Range                |  |
| Operating (TOPR)                 | -40°C ~ +125°C (see options below)           |
| Storage (TSTG)                   | -55°C ~ +150°C                               |
| Shunt Capacitance (Co)           | 3pF  |
| Load Capacitance (CL)            | 7pF~Series<br>(See options on page 2)        |
| Drive Level                      | 100µW  |
| Aging per year                   | ±5 PPM                                       |
| Maximum Soldering Temp / Time    | 260°C / 10 Seconds                           |
| Moisture Sensitivity Level (MSL) | 1  |
| Termination Finish               | Au   |
| Seal Method                      | Seam Seal                                    |
| Lead (Pb) Free                   | Yes  |
| RoHS Compliant                   | No Exemptions                                |

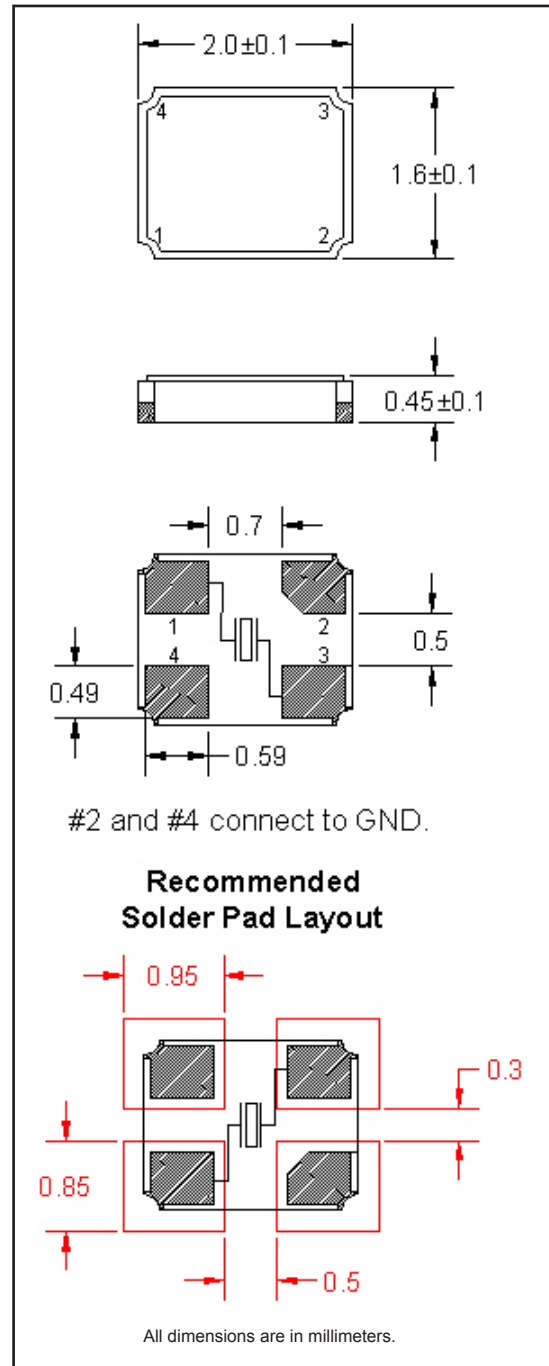
| Frequency Range (MHz) | Operating Mode | Max ESR Ω |
|-----------------------|----------------|-----------|
| 20.000 ~ 23.999999    | Fundamental    | 120       |
| 24.000 ~ 29.999999    | Fundamental    | 100       |
| 30.000 ~ 37.999999    | Fundamental    | 80        |
| 38.000 ~ 50.000       | Fundamental    | 60        |

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. Other tolerances, stabilities and temperature ranges available.

### •Other Stabilities Available

| Stability Temperature | ±20 PPM | ±30 PPM | ±50 PPM | ±100 PPM |
|-----------------------|---------|---------|---------|----------|
| -40 ~+85°C            | O       | O       | O       | O        |
| -40 ~+105°C           | X       | X       | O       | O        |
| -40 ~+125°C           | X       | X       | O       | O        |

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





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| • TAPE SPECIFICATIONS (millimeters) |      |     |     |     |     |      | • REEL SPECIFICATIONS (millimeters) |       |     |     |     |       |      |     |     |
|-------------------------------------|------|-----|-----|-----|-----|------|-------------------------------------|-------|-----|-----|-----|-------|------|-----|-----|
| MODEL                               | A    | B   | C   | D   | E   | F    | STD Reel QTY                        | MODEL | G   | H   | I   | J     | K    | L   | M   |
| C1BA                                | ∅1.0 | 4.0 | 4.0 | 3.5 | 8.0 | 0.65 | 3,000                               | C1BA  | 2.5 | ∅13 | ∅21 | ∅60.2 | ∅180 | 8.1 | 1.6 |

**Available Options & Part Identification for Automotive Crystal Model Number C1BA**

F C1BA C B E I 20.0

|          |              |  |   |   |   |             |
|----------|--------------|--|---|---|---|-------------|
| <b>F</b> | <b>C1BA</b>  | <b>C</b>   | <b>B</b>  | <b>E</b>  | <b>I</b>  | <b>20.0</b> |
| FOX      | Model Number | Tolerance<br>B=50ppm<br><b>C=30ppm</b><br>E=20ppm<br>H=10ppm | Stability<br>A=100ppm<br><b>B=50ppm</b><br>C=30ppm<br>E=20ppm | Load Capacitance<br>A=Series<br>V=7pF<br>D=8pF<br><b>E=10pF</b><br>G=12pF<br>J=15pF<br>K=16pF<br>L=18pF<br>M=20pF | Operating Temperature<br>M=-40~+85°C<br>P=-40~+105°C<br><b>I=-40~+125°C</b> | Frequency   |

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