



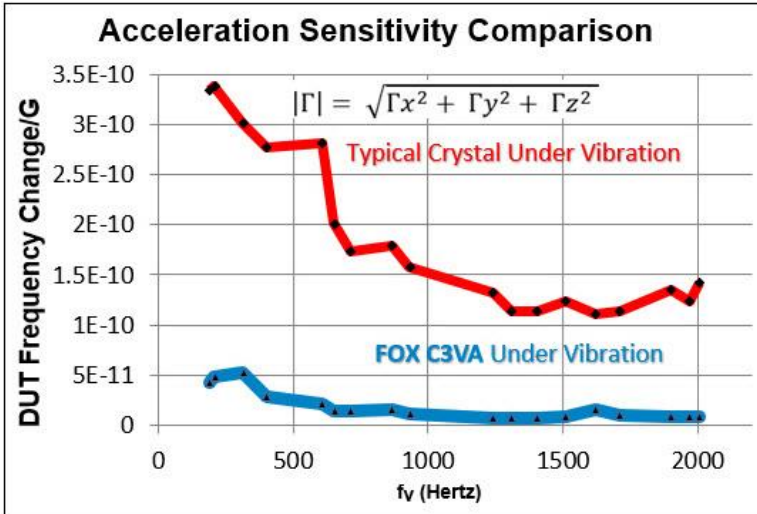
3.2mm x 2.5mm

Vibration Resistant Crystal-Automotive

C3VA

DATASHEET

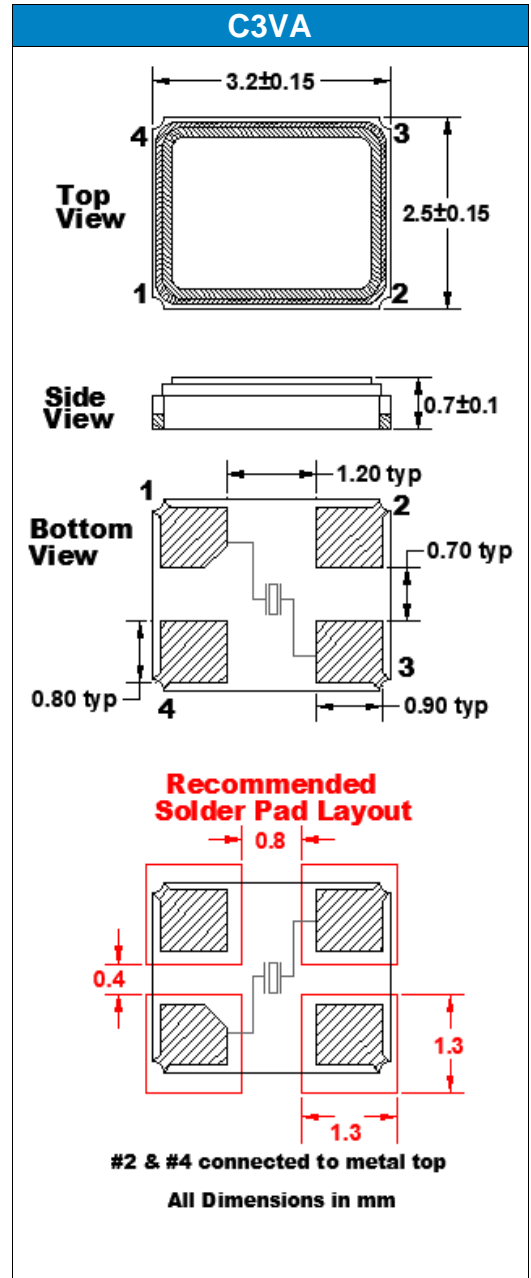
- AEC-Q200 Qualified
- Low G sensitivity
- Tolerances down to ±10 ppm
- Custom application inquiries invited
- Patented technology



| C3VA STANDARD SPECIFICATIONS        |                              |
|-------------------------------------|------------------------------|
| PARAMETERS                          | MAX (Unless otherwise noted) |
| Frequency Range                     | 33 ~ 52 MHz                  |
| Resonance Mode                      | Fundamental                  |
| 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 ~ +125°C               |
| Equivalent Series Resistance (ESR)  | 60Ω Max                      |
| Shunt Capacitance (C <sub>0</sub> ) | 3.0 pF                       |
| Load Capacitance (C <sub>L</sub> )  | (See options on page 2)      |
| Drive Level                         | 0.1 mW                       |
| Aging per year                      | ±5 PPM                       |
| <b>Vibration Sensitivity</b>        | <b>0.2 ppb/G</b>             |
| Maximum Soldering Temp / Time       | 260°C / 10 Seconds x2        |
| Moisture Sensitivity Level (MSL)    | 1                            |
| Termination Finish                  | Au over Ni                   |
| Seal Method                         | Seam                         |
| Lead (Pb) Free                      | Yes                          |
| RoHS/REACH Compliant                | Yes                          |

| AVAILABLE OPERATING TEMPERATURES AND STABILITIES |         |         |         |         |          |
|--|---------|---------|---------|---------|----------|
| Operating Temp.                                  | ±20 PPM | ±25 PPM | ±30 PPM | ±50 PPM | ±100 PPM |
| -20 ~+70°C                                       | O       | O       | O       | O       | NA       |
| -40 ~+85°C                                       | O       | O       | O       | O       | NA       |
| -40 ~+105°C                                      | X       | X       | X       | O       | O        |
| -40 ~+125°C                                      | X       | X       | X       | X       | O        |

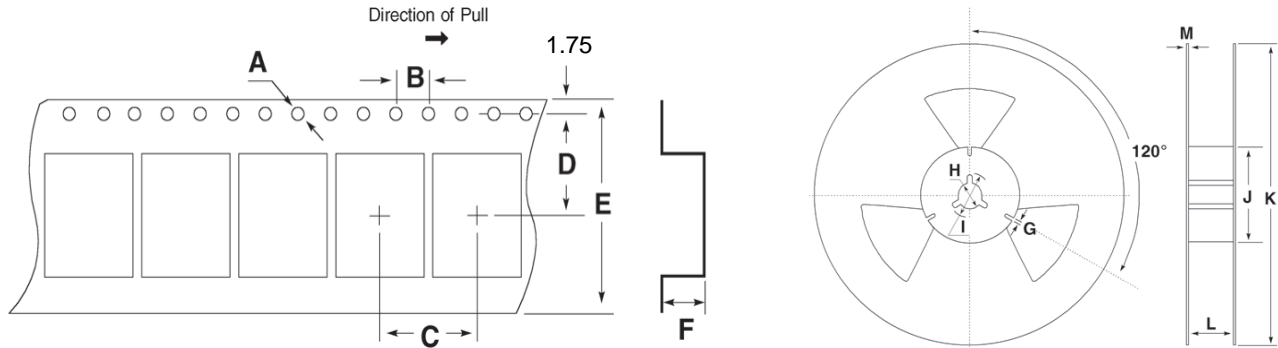
Key: O = Available; X = Not available; NA = Not Applicable



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|   |                      |
|---|----------------------|
| <b>Title / Description:</b> C3VA SERIES STANDARD SPECIFICATIONS |                      |
| <b>Drawing Number:</b> C3VA-DOC-1                               | <b>Size:</b> A       |
| <b>Status:</b> Released   | <b>Case:</b> 61429   |
| <b>Draftsperson:</b> BEC  | <b>Approved:</b> MAJ |
| <b>Revision Date:</b> 06/10/2020                                |                      |

| • TAPE SPECIFICATIONS (mm) |     |     |     |     |     | • REEL SPECIFICATIONS (mm)                        |     |     |     |     |      |     |     |
|----------------------------|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|------|-----|-----|
| A                          | B   | C   | D   | E   | F   | Reel QTY  | G   | H   | I   | J   | K    | L   | M   |
| Ø1.5                       | 4.0 | 4.0 | 3.5 | 8.0 | 1.3 | -T3 = 3,000 default<br>-T2 = 2,000<br>-T1 = 1,000 | 2.0 | Ø13 | Ø21 | Ø80 | Ø180 | 9.0 | 2.0 |



**Available Options & Part Identification for Crystal Model C3VA<sup>1</sup>**  
**F C3VA E E G M 40.0**

| <b>F</b>   | <b>C3VA</b>         | <b>E</b>  | <b>E</b>  | <b>G</b>   | <b>M</b>  | <b>40.0</b>            |
|------------|---------------------|---|---|--|---|------------------------|
| <b>FOX</b> | <b>Model Number</b> | <b>Tolerance</b><br>B = ±50 PPM<br>C = ±30 PPM<br>D = ±25 PPM<br><b>E = ±20 PPM</b><br>F = ±15 PPM<br>H = ±10 PPM | <b>Stability</b><br>A = ±100 PPM<br>B = ±50 PPM<br>C = ±30 PPM<br>D = ±25 PPM<br><b>E = ±20 PPM</b> | <b>Load Capacitance<sup>2</sup></b><br>V = 7 pF<br>D = 8 pF<br>W = 9 pF<br>E = 10 pF<br><b>G = 12 pF</b><br>J = 15 pF<br>K = 16 pF | <b>Operating Temperature</b><br>F = -20 to +70°C<br><b>M = -40 to +85°C</b><br>P = -40 to +105°C<br>I = -40 to +125°C | <b>Frequency (MHz)</b> |

<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  
<https://foxonline.com/>

**Sales**  
 1-888-GET-2-FOX (1-888-438-2369) or  
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