Crystal Unit (XRCGB-F-A Series) - For Automotive Applications -

Features and Structure

- **Small Size** 2.0×1.6×0.7mm
- **High Performance**
  - 24 to 29.99MHz: ±35ppm (-40 to +125°C)
  - 30 to 48MHz: ±65ppm (-40 to +125°C)
- **Economical & Robust Design**
  - Simple structure using Murata’s proven package technology
  - Particle screening process for enhanced reliability
- **Meets AEC-Q200 Standards**

Applications

- **Advanced Driving Assistance System (ADAS)**
  - ex.: Camera & Sensing ECU, Image Processing, Emergency Brake Assist ECU
- **Car Network**
  - ex.: Ethernet, FlexRay, CAN(CAN-FD) Gateway ECU, NFC, etc..
- **Power Train and Others**
  - ex.: Engine, AT, EPS, ESC, etc..

Optimal frequency temperature characteristics across wide temperature range.

Good solder visibility is achieved by the design of the substrate’s four corners.

Product specifications are as of February 2016. They are subject to change without notice.

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No.VPPT-HCRJ126C-D
Unique Method for Particle Screening

Water molecules gather around a particle.

This moisture causes the particle to adhere to the crystal.

Inorganic (Metal)

Murata’s particle screening prevents unsuccessful oscillation caused by an inorganic particle since it is detected through our unique screening process.

If moisture exists inside the cavity of conventional crystal it will affect the oscillation characteristics, therefore it is imperative to add drying process to their production. Due to Murata’s crystal unit design, this is not an issue.

Product Line Up

<table>
<thead>
<tr>
<th>P/N</th>
<th>Freq. [ MHz ]</th>
<th>Freq. Tolerance (at+25° C) [ ppm max. ]</th>
<th>Frequency Shift by Temp. (-40 to +125° C) [ ppm max. ]</th>
<th>ESR [ ohm max. ]</th>
<th>Frequency Aging [ ppm / Y ]</th>
<th>Load capacitance [ pF ]</th>
<th>Drive Level [ μW max. ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>XRCGB24M000F3A00R0</td>
<td>24.0000</td>
<td>+/-30</td>
<td>+/-35</td>
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<td></td>
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<tr>
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<td>25.0000</td>
<td>+/-30</td>
<td>+/-35</td>
<td>100</td>
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<td></td>
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</tr>
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<td>XRCGB26M000F3A00R0</td>
<td>26.0000</td>
<td>+/-30</td>
<td>+/-35</td>
<td>80</td>
<td>+/-2</td>
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<tr>
<td>XRCGB27M000F3A00R0</td>
<td>27.0000</td>
<td>+/-30</td>
<td>+/-35</td>
<td>80</td>
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<td>+/-65</td>
<td>60</td>
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</tr>
</tbody>
</table>

* Additional frequencies to be added to product line up soon : 27.6/30/40 MHz

Dimensions and Land Pattern

* You can get more information for these series by visiting the URL or QR code.

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