172 RLX Series Automotive Grade Miniature Aluminum Capacitors Increase Design Flexibility While Saving Board Space, Deliver 54 % Higher Ripple Current Than Previous-Generation Solutions in Smaller Case Sizes

Product Benefits:
- High ripple currents up to 4.9 A
- High temperature operation to +105 °C
- Very long useful life to 10 000 h
- Available in 14 case sizes ranging from 10 mm by 12 mm to 18 mm by 40 mm
- AEC-Q200 qualified
- Feature radial leads and a cylindrical aluminum case with pressure relief, insulated with a blue sleeve
- Rated voltages up to 50 V
- Capacitance from 150 µF to 15 000 µF
- Low impedance down to 0.011 Ω at +20 °C
- Charge- and discharge-proof
- Polarized aluminum electrolytic capacitors with a non-solid electrolyte
- RoHS-compliant

Market Applications:
- Smoothing, filtering, and buffering in switch mode power supplies, DC/DC converters, motor drives, and control units for industrial, automotive, telecommunications, audio-video, and electronic data processing (EDP) applications

The News:
Vishay Intertechnology introduces a new series of low impedance, Automotive Grade miniature aluminum electrolytic capacitors that delivers higher performance in smaller case sizes than previous-generation solutions.
- Compared to previous-generation solutions, 172 RLX series capacitors offer lower impedance, higher capacitance for a given case size and voltage, and up to 54 % higher ripple current at the same capacitance-voltage (CV) rating in smaller case sizes
  - For example, while previous-generation solutions offer ripple current of 2550 mA at a CV rating of 1200 µF / 50 V in the 16 mm by 31 mm case size, the 172 RLX series delivers 3510 mA in the 16 mm by 25 mm case size
  - This allows designers to utilize fewer components, increasing design flexibility and saving board space
The Key Specifications:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Series</strong></td>
<td>172 RLX</td>
</tr>
<tr>
<td><strong>Case size (D x L in mm)</strong></td>
<td>10 x 12 to 18 x 40</td>
</tr>
<tr>
<td><strong>Capacitance range</strong></td>
<td>150 µF to 15 000 µF</td>
</tr>
<tr>
<td><strong>Tolerance</strong></td>
<td>± 20 %</td>
</tr>
<tr>
<td><strong>Rated voltage</strong></td>
<td>10 V to 50 V</td>
</tr>
<tr>
<td><strong>Category temperature range</strong></td>
<td>-40 °C to +105 °C</td>
</tr>
<tr>
<td><strong>Useful life @ +105 °C</strong></td>
<td>4000 h to 10 000 h</td>
</tr>
<tr>
<td><strong>Ripple current</strong></td>
<td>1280 mA to 4960 mA</td>
</tr>
<tr>
<td><strong>Max. impedance at 100 kHz</strong></td>
<td>0.011 Ω to 0.073 Ω (@ +20 °C); 0.033 Ω to 0.220 Ω (@ -10 °C); 1.7 Ω to 11.0 Ω (@ -40 °C)</td>
</tr>
<tr>
<td><strong>Climatic category IEC 60068</strong></td>
<td>-40 / 105 / 56</td>
</tr>
</tbody>
</table>

Availability:
Samples and production quantities of the 172 RLX series are available now, with lead times of eight weeks.

To access the product datasheet on the Vishay Website, go to [http://www.vishay.com/ppg?28499](http://www.vishay.com/ppg?28499) (172 RLX)

Contact Information:

**THE AMERICAS**
Walter Bonomo
[Walter.Bonomo@Vishay.com](mailto:Walter.Bonomo@Vishay.com)

**EUROPE**
Gerald Tatschl
[Gerald.Tatschl@Vishay.com](mailto:Gerald.Tatschl@Vishay.com)

**ASIA/PACIFIC**
BH Tan
[Boonhooi.Tan@Vishay.com](mailto:Boonhooi.Tan@Vishay.com)