

# 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  $\mu\text{F}$  to 15 000  $\mu\text{F}$
- Low impedance down to 0.011  $\Omega$  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  $\mu\text{F}$  / 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:

<b>Series</b>	172 RLX
<b>Case size (D x L in mm)</b>	10 x 12 to 18 x 40
<b>Capacitance range</b>	150 $\mu$ F to 15 000 $\mu$ F
<b>Tolerance</b>	$\pm$ 20 %
<b>Rated voltage</b>	10 V to 50 V
<b>Category temperature range</b>	-40 °C to +105 °C
<b>Useful life @ +105 °C</b>	4000 h to 10 000 h
<b>Ripple current</b>	1280 mA to 4960 mA
<b>Max. impedance at 100 kHz</b>	0.011 $\Omega$ to 0.073 $\Omega$ (@ +20 °C); 0.033 $\Omega$ to 0.220 $\Omega$ (@ -10 °C); 1.7 $\Omega$ to 11.0 $\Omega$ (@ -40 °C)
<b>Climatic category IEC 60068</b>	-40 / 105 / 56

### 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> (172 RLX)

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