# **Vibration-resistant capacitors**



#### Are solid polymer capacitors good for vibration?

Even better, the life expectancy increases by an order of magnitude (ten times) for every 20°C the capacitor's operating temperature decreases. What Makes Solid Polymer Capacitors Good For Vibration? KEMET's A768 series of solid polymer capacitors are specially designed to be resistant to vibration forces up to 30G.

What is the vibration resistance of axial-lead capacitors?

The vibration resistance of axial-lead capacitors is specified according to the international stan-dard IEC 60068-2, test Fc. The test method requires the capacitor to be rigidly clamped by the aluminum case.

#### Why is Panasonic a vibration-proof capacitor?

Vibration resistance is also greatly enhanced by the Panasonic anti-vibration features along with the reduced height, volume and weight. Applications, where vibration resistance is critical, are becoming more common and manufacturer Panasonic is responding with vibration-proof components in their capacitor ranges.

What type of anti-vibration capacitor does Panasonic use?

The industry,however,needs a smaller type. Leveraging our own auxiliary terminal structure,Panasonic has commercialized anti-vibration capacitor with a diameter of 6.3 mmthat withstands vibration acceleration of 30G. This new capacitor will contribute to miniaturization of the ECU and provide better overall resistance to vibration.

What size anti-vibration capacitor should I buy?

Currently,most capacitors with superior anti-vibration performance are 8 - 10 mmin diameter. The industry,however,needs a smaller type. Leveraging our own auxiliary terminal structure,Panasonic has commercialized anti-vibration capacitor with a diameter of 6.3 mm that withstands vibration acceleration of 30G.

What is the risk of vibration damage to a capacitor?

There is most risk of vibration damage to capacitors in applications where high uFvalues are used where the parts are physically large, often with many paralleled. Examples would be in DC-link connections in inverters or motor controllers or output filters in high power AC-DC and DC-DC converters.

KEMET"s A768 series of solid polymer capacitors are specially designed to be resistant to vibration forces up to 30G. Besides all the benefits of polymer capacitors mentioned above, the solid polymer is also more internally structurally ...

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The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note. Vibration resistant structure snap-ins, 105? CATEX LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

Axial-lead and soldering star capacitors provide high vibration stability by means of a construction with extra rugged leads (? 1.0 mm) and strong internal fixation of the winding element in the ca-

Vibration-proof capacitors are available from 3.3 to 6800 microfarads and voltage ratings up to 100 volts. The different series allow designers to select capacitors optimized to their design needs, with options such as low ESR, low impedance, small case size, and more.

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note. Please contact us for lifetime estimation. Vibration resistant structure, 135? ANEY

Panasonic's new SMD Vibration-Proof Capacitors can be designed in with confidence because they withstand 30G and are AEC-Q200 Compliant for automotive applications as well as other strenuous environments which ensures optimal quality and reliability. Choose Anti-Vibration variant parts where high capacitance current

Panasonic Anti-Vibration Capacitors can be designed with confidence for automotive applications. These capacitors from Panasonic are ideal for strenuous environments that require optimal quality and reliability. The vibration-proof capacitors can withstand 30G and are AEC-Q200 Compliant.

Excellent vibration resistance eliminates the need for anti-vibration reinforcement during ...

Panasonic, a worldwide leader in Capacitor products, has significantly expanded twelve proven, Surface Mount Aluminum Electrolytic Capacitor Series to include NEW, Anti-Vibration part numbers that withstand 30G! Large board components designed into harsh automotive and industrial applications must be reliably manufactured and offer ...

Panasonic's proven surface-mount aluminum electrolytic capacitor series now includes anti-vibration part numbers that withstand 30 G. Large board components designed into harsh automotive and industrial applications must be reliably manufactured and offer strong, dependable soldering connectivity.



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Vibration-resistant hybrid capacitors from Panasonic. Due to their size, capacitors are usually susceptible to vibration damage. This especially applies to high value electrolytic capacitors. Typical THT models feature relatively low parameters. Usually, their vibration tolerance is a maximum acceleration of 10g, i.e. about 100 m/s 2, and 1.5mm peak to peak ...

This vibration-resistant capacitor uses an adhesive resin for the purpose of increasing durability from vibration. The adhesive resin has a large impact on the vibration-resistant performance. Figure 6 shows the required performance sought in the adhesive resin. First, it is essential that there be excellent adhesion to the seat and to the aluminum case. Naturally, this requires ...

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