

TDK offers MLCCs with the industry's highest capacitance at 100V for automotive applications in 3225 case size

TDK Corporation has expanded its CGA series for automotive multilayer ceramic capacitors (MLCCs) to 10 μ F at 100 V in 3225 size (3.2 x 2.5 x 2.5 mm – L x W x H), with X7R characteristics (Class II dielectric). This is the industry's highest capacitance* for a 100-V rated product in 3225 size and this temperature characteristic.

While power consumption has increased and high-current systems have become more widespread in recent years with the increasing sophistication of ECUs, there is also demand for lighter vehicles (with lighter wiring harnesses), and the use of 48 V battery systems is becoming increasingly widespread. With this, there has been an increasing demand for high-capacity 100-V products, such as smoothing and decoupling capacitors used in power lines.

CGA series 100-V products achieve twice the capacity of conventional products of the same size thanks to optimized material selection and product design. This new product makes it possible to halve the number of MLCCs used and the mounting area, contributing to the reduction of component count and miniaturization of sets.

*Source: TDK, as of April 2025

Main applications

- Smoothing and decoupling of the power lines for various kinds of 48V products for automobiles

Main features and benefits

- Reduced component count and miniaturization of sets because the product offers a high capacitance of 10 μ F in 3225 size
- High reliability qualified based on AEC-Q200