



Press Information

Multilayer Ceramic Capacitors

TDK launches industry-leading low-resistance softtermination C0G MLCCs with 22 nF at 1000 V in the 3225 case size

- New 1000 V product with a capacitance of 22 nF in the 3225 case size with C0G characteristics of lowresistance soft termination type for automotive and general applications
- Contributes to greater reliability in applications, reduction of component count, and miniaturization
- Qualified based on AEC-Q200

September 18, 2025

TDK Corporation (TSE:6762) announced today it expanded its CN series of low-resistance soft-termination MLCCs. This product achieves an industry-leading* 22 nF capacitance in the 3225 case size (3.2 x 2.5 x 2.5 mm – L x W x T) and COG characteristics at 1000 V. Mass production of the product series began in September 2025. The capacitors of the CN series are industry-first products that are equivalent to regular products in terms of their terminal resistance due to the optimization of their resin electrode structure.

In recent years, there has been an increase in the use of multiple resonance capacitors placed in series-parallel circuits for resonance applications such as LLC resonant circuits and wireless charging. As applications become more powerful, they require more resonance capacitance, which increases the demand for high-voltage, large-volume capacitors. To improve reliability in these applications, components with resin electrodes effectively prevent placement cracks resulting from external stress. However, the increased resistance value of resin electrodes has been an issue.

This led TDK to develop the CN series with optimized resin electrode structures, resulting in significantly lower resistance values. In addition to the low losses and capacitance stability over temperature and voltage variations of COG products, these resin electrode structures achieve both high reliability against external stress and reduced loss, making them ideal for use as resonator and snubber capacitors.

The optimization of product and process designs has made it possible to manufacture these products, which helps increase reliability and application to high-voltage circuits and enhances the reliability of the applications. TDK will continue to expand its product line to meet the needs of its customers.

* As of September 2025, according to TDK



Main applications

- Resonance circuits
- Snubber circuits

Main features and benefits

- TDK's unique terminal structure realizes soft termination MLCC whose low resistance is equal to that of standard terminal products
- COG characteristics with low loss and capacitance stability during temperature or voltage changes
- Higher reliability of applications, reduced component count, and miniaturization achieved with resin electrodes, high voltages, and large volume

Type*	Outer dimensions [mm]	Temperature characteristics	Rated voltage [V]	Capacitance [nF]	Capacitance tolerance [%]
CNA6P1C0G3A223G250AE					±2
CNA6P1C0G3A223J250AE	22425425	505	1 000	22	±5
CNC6P1C0G3A223G250AE	3.2 x 2.5 x 2.5	COG	1,000	22	±2
CNC6P1C0G3A223J250AE					±5

^{*}CNA is for automotive, and CNC is for commercial.

Samples may be purchased from the product page displayed after clicking Type.



About TDK Corporation

TDK Corporation (TSE:6762) is a global technology company and innovation leader in the electronics industry, based in Tokyo, Japan. With the tagline "In Everything, Better" TDK aims to realize a better future across all aspects of life, industry, and society. For over 90 years, TDK has shaped the world from within; from the pioneering ferrite cores to cassette tapes that defined an era, to powering the digital age with advanced components, sensors, and batteries, leading the way towards a more sustainable future. United by TDK Venture Spirit, a start-up mentality built on visions, courage and mutual trust, TDK's passionate team members around the globe pursue better—for ourselves, customers, partners, and the world. Today, the state-of-the-art technologies of TDK are in everything, from industrial applications, energy systems, electric vehicles, to smartphones and gaming, at the core of modern life. TDK's comprehensive, innovative-driven portfolio includes cutting-edge passive components, sensors and sensor systems, power supplies, lithium-ion and solidstate batteries, magnetic heads, AI and enterprise software solutions, and more—featuring numerous marketleading products. These are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics, TDK-Lambda, TDK SensEI, and ATL. Positioning the AI ecosystem as a key strategic area, TDK leverages its global network across the automotive, information and communication technology, and industrial equipment sectors to expand its business in a wide range of fields. In fiscal 2025, TDK posted total sales of USD 14.4 billion and employed about 105,000 people worldwide.

You can download this text and associated images from https://www.tdk.com/en/news_center/press/20250918 01.html

Further information on the products can be found under

https://product.tdk.com/en/search/capacitor/ceramic/mlcc/list#part_no=CN*C0G3A&_l=50&_p=1&_c=pure_status-pure_status-burse

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