Inductors

TDK offers tiny 0201 inductors for high-frequency circuits

- The smallest size in the industry* in the 0201 size
- Achieves high-frequency characteristics through proprietary patterning and sintering technologies
- Lineup of inductances with fine increments, taking advantage of the features of the multilayer method
- Wide temperature range of -55 °C to +125 °C

May 20, 2025

TDK Corporation (TSE: 6762) announces the expansion of the MUQ0201022HA series* of high-frequency inductors. The 0201 size (0.25 x 0.125 x 0.2 mm; L x W x T) are the smallest inductors of their kind in the industry with the same electrical characteristics as the existing MHQ0402PSA series, which is one size larger at 0402 (0.4 x 0.2 mm; L x W). The lineup covers an inductance from 0.6 nH to 3.6 nH. Mass production of these new components began in May 2025.

As mobile devices such as smartphones and wearable devices become increasingly sophisticated and compact, there is a growing need for small-sized, high-performance components. By applying its proprietary patterning and sintering technologies, TDK has achieved high-frequency characteristics equivalent to or better than existing products while reducing the component mounting area by around half. TDK will further expand its line to meet the needs of customers.

*Source: TDK, as of May 2025

*This product is not sold through distributors. For inquiries, please contact us using the contact form below.
Contact Form | TDK

Glossary

- Inductors for high-frequency circuits: Inductors for the high-frequency band (GHz band)

Main applications

- Impedance matching for high-frequency front-end modules for mobile devices
- Impedance matching for wearable devices

Main features and benefits

- Achieves high-frequency characteristics equivalent to or better than existing products that are one size larger by applying TDK's own proprietary patterning and sintering technologies
- Maintains the same characteristics while reducing mounting area to around half the size of a 0402 mm inductor

Type	Outer dimensions [mm]	Inductance [nH]
MUQ0201022HA series	0.25 x 0.125 x 0.2	0.6 - 3.6

About TDK Corporation

TDK Corporation is a world leader in electronic solutions for the smart society based in Tokyo, Japan. Built on a foundation of material sciences mastery, TDK welcomes societal transformation by resolutely remaining at the forefront of technological evolution. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's comprehensive, innovation-driven portfolio features passive components such as ceramic, aluminum electrolytic and film capacitors, as well as magnetics, high-frequency, and piezo and protection devices. The product spectrum also includes sensors and sensor systems such as temperature and pressure, magnetic, and MEMS sensors. In addition, TDK provides power supplies and energy devices, magnetic heads, software and more. These products are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics, and TDK-Lambda. TDK focuses on demanding markets in automotive, industrial and consumer electronics, and information and communication technology. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2025, TDK posted total sales of USD 14.4 billion and employed about 105,000 people worldwide.

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