

## Capacitors

# TDK offers hybrid polymer capacitors with very high ripple current capability

April 09, 2024

TDK Corporation (TSE:6762) presents the B40910 series of hybrid polymer capacitors which can handle up to 4.6 A (100 kHz, +125 °C). This is because at room temperature the surface mount components offer an extremely low ESR value of 17 mΩ and 22 mΩ, respectively. Furthermore, their ESR does not change as much with temperature as standard electrolytic capacitors with liquid electrolytes. The 10 x 10.2 mm or 10 x 12.5 mm (D x H) small components have a rated voltage of 63 V and cover a capacitance range from 82 μF to 120 μF.

As their temperature range spans from -40 °C to +145 °C, the reflow solderable capacitors are typically used in demanding applications in automotive and industrial segments. Their useful life is more than 4000 h at a temperature of +135 °C at the rated voltage and the maximum ripple current  $I_{AC,max}$ .

-----

### Main applications

- Automotive electronics
- Industrial electronics

### Main features and benefits

- Very high ripple current capability of up to 4.6 A
- Very low ESR and low ESR variation across the temperature range
- High operating temperature capability up to +145 °C
- Long useful life of 4000 h at +135 °C
- Surface mount device, suitable for reflow soldering

Ordering code	Rated capacitance $C_R$ (120 Hz, +20 °C) [μF]	ESR <sub>max</sub> (100 kHz, +20 °C) [mΩ]	$I_{AC,R}$ (100 kHz, +125 °C) [A]	Case dimensions (D x H) [mm]
B40910A8826M000	82	22	4.0	10 x 10.2
B40910A8107M000	100	22	4.0	10 x 10.2
B40910B8107M000	100	17	4.6	10 x 12.5
B40910A8127M000	120	17	4.6	10 x 12.5

## 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 and deliberately “Attracting Tomorrow.” 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 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 2023, TDK posted total sales of USD 16.1 billion and employed about 103,000 people worldwide.

-----

You can download this text and associated images from [www.tdk-electronics.tdk.com/en/240409](http://www.tdk-electronics.tdk.com/en/240409)  
Further information on the products can be found at [www.tdk-electronics.tdk.com/en/smd\\_capacitors](http://www.tdk-electronics.tdk.com/en/smd_capacitors)

-----

## Contacts for regional media

Region	Contact	Phone	Mail
Europe	Mr. R. HIGGELKE TDK Electronics AG Munich, Germany	+49 89 54020 1378	<a href="mailto:ralf.higgelke@tdk.com">ralf.higgelke@tdk.com</a>
North America	Ms. D. MARTIN TDK Electronics Inc. Fountain Hills, AZ, USA	+1 480 836 4104	<a href="mailto:debbie.martin@tdk.com">debbie.martin@tdk.com</a>
South America	Mr. C. DALL'AGNOL TDK Electronics do Brasil Ltda., Gravataí, Brazil	+55 51 3484 7158	<a href="mailto:candido.dallagnol@tdk.com">candido.dallagnol@tdk.com</a>
India	Mr. H. BAGHEL TDK India Private Limited Noida, India	+91 12 04 50 58 42	<a href="mailto:himalaya.baghel@tdk.com">himalaya.baghel@tdk.com</a>
Greater China	Ms. S. SUEN TDK Electronics Hong Kong Limited, Hong Kong	+852 3669 8224	<a href="mailto:stella.suen@tdk.com">stella.suen@tdk.com</a>
Japan	Mr. Y. OSUGA TDK Corporation Tokyo, Japan	+813 6778 1055	<a href="mailto:TDK.PR@tdk.com">TDK.PR@tdk.com</a>