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NICHICON Develops 150°C 2,000 Hours Guaranteed Aluminum Electrolytic Capacitors

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In recent years, the increase of automotive onboard electronics being installed in close proximity to the engine compartment necessitates that aluminum electrolytic capacitors be extremely heat resistant. NICHICON CORPORATION developed aluminum electrolytic capacitors with an operating temperature of up to 150°C and rated life of 2,000 hours to handle extreme heat environments.

The new products will be exhibited at CEATEC 2019, held at Makuhari Messe from Tuesday, October 15, to Friday, October 18.

Overview and Development Background

Previously, NICHICON had launched the UBC series (guaranteed operation for 1,000 hours at 150°C). The new products (150°C; 2,000 hours) developed this time increase the life while offering low ESR.

The new products are expected to contribute to higher performance and longer life in a variety of applications in extremely high-temperature environments that our current lineup is unable to withstand.

Features

In addition to improvements in materials and the manufacturing process, the new products achieve a rated operating temperature of 150°C and low ESR from the use of a low evaporation, low-resistance electrolyte. The products have the longest rated life of 2,000 hours for capacitors sized $\phi 8$ and $\phi 10$ along with guaranteed low ESR at low temperature.

Using 150°C, 2,000-hour rated aluminum electrolytic capacitors can contribute to miniaturization and reduce production costs since they offer up to

1.5 times the capacitance of the existing 150°C-rated UBC series.

Main Specifications

Rated voltage range	25 to 35V DC
Rated capacitance range	100 to 220 μ F
Category temperature range	-40 to 150°C
Product dimensions	ϕ 8 × 10L to ϕ 10 × 10L (mm) 2 sizes
Life	2,000 hours guaranteed at 150°C
Terminal shape	Chip type *anti-vibration structure is available
Samples	From April 2020
Mass production	From October 2020 [Planned production volume: 500 thousands /month]
Production plant	NICHICON (IWATE) CORPORATION, 8-17-1, Kubo, Iwate-cho Iwate-gun, Iwate Prefecture (ISO 9001, IATF 16949, and ISO 14001 certified)



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