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NICHICON Expands Ratings of 50V and 63V for UCH Series of Endurance-Tested ESR regulation Chip-Type Aluminum Electrolytic Capacitors

NICHICON CORPORATION

Karasumadori Oike-agaru, Nakagyo-ku, Kyoto

Phone: +81-75-231-8461

Inquiries: Masanobu Seki, Operating Officer and
General Manager, Capacitor Business Headquarters

NICHICON CORPORATION has expanded the ratings for its UCH series of endurance-tested ESR regulation chip-type aluminum electrolytic capacitors. The UCH series meets the demand in the automotive industry for high performance, long life, and optimal high- and low-temperature ESR ratings. The UCH series is rated at 125°C with a rated life of 2,000 hours.

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

Overview and Development Background

Demand is increasing in the automotive onboard electronics industry for chip-type capacitors used in engine ECUs* and peripheral drive system ECUs to make for more comfortable vehicle interior environments. These products must be long lasting, capable of operating in severe environments, and must withstand both high and low temperatures with low ESR. Furthermore, as automotive devices shift toward using higher voltages, medium voltage-rated capacitors with these features are sought after in addition to our existing low voltage-rated capacitors.

By expanding the UCH series to include 50V and 63V versions will help meet the demand for higher heat resistance while contributing to better energy efficiency and longer lifespans in set devices.

Features

Based on technologies NICHICON has developed, the UCH employs a newly adopted low evaporation electrolyte and high-magnification anode foil to achieve

even higher capacitance and lower ESR than the current 125°C low ESR-rated chip-type UCZ series. Expansion of the voltage ratings allows the UCH series to be used in set devices in automotive environments, and makes improvements in energy efficiency and long life possible. The UCZ series has a rated life of 2,000 hours at 125°C.

Main Specifications

Note: Figures in parentheses indicate expanded ratings.

Rated voltage range	25 to 63VDC (50, 63VDC)
Rated capacitance range	33 to 560 μ F (33, 47, 68, 100, 180uF)
Category temperature range	-40 to +125°C
Product dimensions	ϕ 6.3 \times 7.7L to ϕ 10 \times 10L (mm) 3 sizes
Life	2,000 hours guaranteed at 125°C
Terminal shape	Chip type
Samples	From January 2020
Mass production	From April 2020 [Planned production volume: 1 million/month]
Production plant	NICHICON (IWATE) CORPORATION, 8-17-1, Kubo, Iwate-cho Iwate-gun, Iwate Prefecture (ISO 9001, IATF 16949, and ISO 14001 certified)

Terminology Explanation

*ECU: Electronic control unit



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