

October 10, 2019

NICHICON Expands Voltage Ratings of 63V and 80V for Industries' Highest Capacitance UCM Series of Chip-Type Aluminum Electrolytic Capacitors

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NICHICON CORPORATION has expanded the voltage ratings for its miniature and high-capacitance UCM series of chip-type aluminum electrolytic capacitors. The UCM series meets the continual demand for miniaturization and high performance in set devices in both the automotive and consumer equipment industries. The UCM series is the smallest capacitor available today, it has a rated life of 2,000 hours at 105°C, and offers high capacitance and low impedance.

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

Overview and Development Background

Demand for smaller chip-type capacitors is growing as manufacturers are making more densely packed boards on set devices for electronic equipment and consumer appliances. Capacitors for use in digital equipment need to be low in noise and impedance. In addition to denser mounting, the miniaturization of set devices and their increasingly high performance means capacitors must be made smaller, with higher capacitance and lower impedance.

By expanding the ratings in this series (63V, 80V), Nichicon can meet the demand for denser mounting in medium-voltage applications while contributing to miniaturization, high performance, and reduced production costs that are in demand for set devices in both the digital electronics and automotive electronics markets.

Features

Based on technologies Nichicon has developed, the UCM series utilizes thinner separator, high-magnification anode foil, thinner cathode foil, and a new electrolyte. As a result, the UCM series achieves capacitances one rank higher than our existing 105°C low-impedance chip-type product, the UCD series. The UCM series has been developed to contribute to lower production costs, space savings, and higher efficiency. The series is rated for 2,000 hours at 105°C.

Main Specifications

Note: Figures in parentheses indicate expanded ratings.

Rated voltage range	6.3 to 100VDC (63, 80VDC)
Rated capacitance range	10 to 5,100 μ F (33, 47, 68, 100, 220 μ F)
Category temperature range	-55 to +105°C
Product dimensions	ϕ 4 \times 5.8L to ϕ 18 \times 21.5L (mm) 12 sizes (ϕ 6.3 \times 7.7L, ϕ 8 \times 10L, ϕ 10 \times 10L)
Life	2,000 hours at 105°C
Terminal shape	Chip type
Samples	Expanded lineup from January 2020
Mass production	Expanded lineup from April 2020 [Planned production volume: 1 million/month]
Production plant	[Size: ϕ 4 to ϕ 10] NICHICON (IWATE) CORPORATION, 8-17-1, Kubo, Iwate-cho Iwate-gun, Iwate Prefecture (ISO 9001, IATF 16949, and ISO 14001 certified)
	[Size: ϕ 12.5 to ϕ 18] NICHICON (OHNO) CORPORATION, SITE II Factory 4-24-15 Tsuchifugo, Ono, Fukui Prefecture (ISO 9001, IATF 16949, and ISO 14001 certified)



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