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**Expanding the UCM Series of Chip-Type Aluminum Electrolytic Capacitors with the
Addition of ϕ 12.5 to ϕ 18 mm Size Capacitors**

NICHICON CORPORATION expands its product line with the addition of ϕ 12.5 to ϕ 18 mm size capacitors to the UCM Series of high-capacity, high-ripple current chip-type aluminum electrolytic capacitors. The new UCM capacitors meet the demands for miniaturization and high-performance in automotive-related and telecommunications equipment.

These products will be displayed at CEATEC JAPAN 2018, held at Makuhari Messe from Tuesday, October 16, to Friday, October 19.

Overview and Development Background

With advances in electronic component surface mounting techniques in automotive-related and telecommunications equipment electronic, there has been a rising demand for chip-type aluminum electrolytic capacitors. In addition to demands for high-capacity capacitors as automotive-related equipment power supply backups, small, high-capacity and high-ripple current capacitors are also required for high-density mounting of telecommunications equipment.

In response to these needs, NICHICON is enhancing its lineup in the UCM Series product line of chip-type aluminum electrolytic capacitors.

Features

Based on technologies NICHICON has developed, the new UCM series products achieve up to approximately 1.9 times higher capacity and approximately 2.1 times higher ripple current than the same size part in the UCD Series. This is done by applying high-capacitance electrolytic foil and thin electrolytic paper and optimizing the combination of components and structure. Endurance is guaranteed to 5,000 hours at 105°C. The introduction of this product will contribute to equipment space-saving and an even higher level of performance.

Comparison of Electrical Characteristics of Same-Sized Products

Rated voltage (V)	Case size $\phi D \times L$ (mm)	Capacitance (μF)			Rated Ripple current (mArms) (at 105°C 100kHz)		
		UCD Series (Current product)	UCM Series (New product)	Increase	UCD Series (Current product)	UCM Series (New product)	Increase
35	12.5×13.5	680	910	×1.3	1100	1420	×1.3
	16×16.5	1000	1800	×1.8	1800	1910	×1.1
63	12.5×13.5	220	360	×1.6	800	1250	×1.6
	16×16.5	470	620	×1.3	1410	1740	×1.2
100	12.5×13.5	68	130	×1.9	500	1050	×2.1
	16×16.5	150	240	×1.6	793	1500	×1.9

Main Specifications Note: Figures in parenthesis indicates expanded rating

- Rated voltage range: 6.3 to 50V (25 to 100V)
 - Rated capacitance range: 10 to 5100 μF (130 to 5100 μF)
 - Category temperature range: -55 to +105°C
 - Product dimensions: $\phi 4 \times 5.8L$ to $\phi 18 \times 21.5L$ ($\phi 12.5 \times 13.5L$ to $\phi 18 \times 21.5L$)
 - Life: 105°C 2,000 hours guaranteed [$\phi 4 \times 5.8L$ to $\phi 10 \times 10L$]
105°C 5,000 hours guaranteed [$\phi 12.5 \times 13.5L$ to $\phi 18 \times 21.5L$]
 - Terminal shape: Chip type
 - Samples: (Expanded rating products) from October 2018
 - Mass production: (Expanded rating products) from March 2018
[Planned production volume: 1 million/month]
 - Production plant: NICHICON (OHNO) CORPORATION
[$\phi 12.5$ to $\phi 18$ size product production]
1-11-2 Shimoyoro, Ohno-shi, Fukui Prefecture
(ISO 9001, ISO/TS 16949 and ISO 14001 certified)
- NICHICON (IWATE) CORPORATION
[$\phi 4$ to $\phi 10$ size product production]
8-17-1, Kubo, Iwate-cho Iwate-gun, Iwate Prefecture
(ISO 9001, ISO/TS 16949 and ISO 14001 certified)



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