



Press Release

Nippon Chemi-Con Corporation
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Conductive Polymer Hybrid Aluminum Electrolytic Capacitors HXJ Series New Sizes (ø10×12.5L, ø10×16.5L) Developed A maximum 1.4 times higher capacitance and 1.7 times higher ripple current capability compared to same-size products

Nippon Chemi-Con has developed and added new sizes (ø10×12.5L, ø10×16.5L) to conductive polymer hybrid aluminum electrolytic capacitors HXJ Series. The Series is in mass production for the automotive electronics, industrial equipment and communication base station markets which require high reliability. We have realized a maximum 1.4 times higher capacitance and 1.7 times higher ripple current capability compared to products of the same size (ø10×12.5L) while maintaining high reliability (HXC Series: 4,000 hours at 125°C/2,000 hours at 85°C85%RH). We have also added the ø10×16.5L size which has a longer length as well as further increased capacitance and ripple current capability. This will reduce the number of capacitors required and contribute to the weight and size reduction of applications.

Technical Features

Conductive polymer hybrid aluminum electrolytic capacitors use conductive polymer and liquid electrolyte for electrolytes. This achieves oxide layer repairability due to the liquid electrolyte as well as low ESR characteristics and remarkable heat resistance due to the conductive polymer. These characteristics have supported the development of high withstand voltage products with low ESR and high reliability.

The HXJ Series optimizes counter electrode foil by adopting our proprietary high capacitance foil for the anode foil. We have achieved higher capacitance and ripple current capability while maintaining high reliability by adopting the above technology and increasing the length of our existing ø10×10L size product.

Specifications of Newly Added Products

- Category temperature range: -55°C to +125°C
- Rated voltage range: 25V to 63V
- Capacitance range: 120µF to 1,000µF (capacitance tolerance ±20%)
- Case sizes: ø10.0×12.5mmL, ø10.0×16.5mmL
- Endurance: 4,000 hours at 125°C
- Moisture resistance: 2,000 hours at 85°C85%RH

Samples and Mass Production

Samples: July 2022

Mass production: September 2022

Production Sites

ø10×12.5L: Chemi-Con East Japan Corp. Miyagi Plant

ø10×16.5L: Chemi-Con Yamagata Corp. Yonezawa Plant

List of Standard Products

Size øD×L [mm]	Rated voltage [Vdc]	Cap. [μF/120Hz]		Endurance [hrs.] 125°C	ESR [mΩmax/100kHz]		Rated ripple current [mA rms/100kHz]	
		HXC	HXJ		HXC	HXJ	HXC	HXJ
10.0×12.5	25	470	680	4,000	16	15	2,500	3,700
	35	330	470		17	16	2,400	3,600
	50	150	180		19	19	2,250	3,300
	63	100	120		22	19	2,100	3,300
10.0×16.5	25	-	1,000	4,000	-	11	-	4,300
	35	-	680		-	11	-	4,300
	50	-	270		-	13	-	4,200
	63	-	180		-	15	-	4,100

Product Appearance

