



Press Release

Nippon Chemi-Con Corporation
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Conductive Polymer Hybrid Aluminum Electrolytic Capacitor Development of the "HXJ (125°C)/HXK (105°C) Series" That Provide One Rank Higher Capacitance in the Same Size

Nippon Chemi-Con has developed the "HXJ Series" and "HXK Series" conductive polymer hybrid aluminum electrolytic capacitors that increase the capacitance of the existing "HXC Series" and "HXD Series" that are made for the automobile equipment and industrial equipment sectors that require high reliability.

The high performance of the original products are maintained (HXC series: 4,000 hours at 125°C; HXD series: 5,000 hours at 105°C; The moisture resistance performance for both series is guaranteed for 2,000 hours at 85°C and 85% RH) but the capacitance has been increased by one rank with the same size. This will help to reduce the weight of products and make them smaller by reducing the number of capacitors that need to be used.

Conductive polymer hybrid aluminum electrolytic capacitors use conductive polymer and electrolytic solution in the electrolyte, so that in addition to having low ESR properties and superior heat resistance because of the conductive polymer, it has the ability to repair oxide film because of the electrolytic solution. Therefore it can help to make products with low ESR, high reliability, and with higher withstand voltage than conductive polymer aluminum solid capacitors.

In the development of the "HXJ and HXK series", our high capacity foil was adopted for the positive electrodes, the opposite electrode foil was optimized, and conductive polymer material and electrolytic solution that were highly compatible with both foils were adopted. This allowed us to increase the capacitance while maintaining high reliability.

<<Main Specifications>>

Series	HXJ	HXK
Category temperature range	-55°C to +125°C	-55°C to +105°C
Endurance with ripple current	4,000 hours at 125°C	5,000 hours at 105°C
Humidity resistance (high temperature, high humidity)	2,000 hours at 85°C, 85%RH (with DC rated voltage applied)	
Rated voltage	16, 25, 35 WV	
Capacitance range	56 to 680 μ F	
Case size range	ϕ 6.3×5.8 L mm to ϕ 10.0×10.0 L mm	

<<Comparison of Capacitance>>

Series	HXC/HXD		HXJ/HXK	
Case size φD x L [mm]	Rated voltage	Cap. [μF/120 Hz]	Rated voltage	Cap. [μF/120 Hz]
6.3 x 5.8	16	82	16	120
	25	56	25	68
	35	47	35	56
6.3 x 7.7	16	150	16	180
	25	100	25	120
	35	68	35	82
8.0 x 10.0	16	270	16	390
	25	220	25	270
	35	150	35	180
10.0 x 10.0	16	470	16	680
	25	330	25	470
	35	270	35	330

<<Sample Availability and Mass Production Schedule>>

Samples: July 2015

Mass production: November 2015

<<Production Location>> Chemi-Con Miyagi Corporation

<<Product Appearance>>

