

# HXK Series

- High reliability is realized by hybrid electrolyte
- Endurance with ripple current : 4,000 hours at 125°C
- Rated voltage range : 16 to 35V<sub>dc</sub>, Capacitance range : 270 to 1,200μF
- For high temperature and high reliability applications.  
(Automotive equipment, etc.)
- RoHS2 Compliant
- Halogen Free
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

HXK

↓  
Downsized  
HXJ



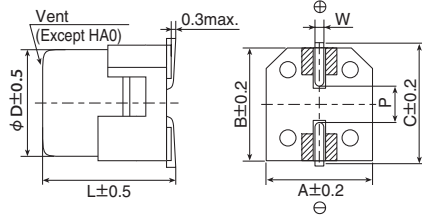
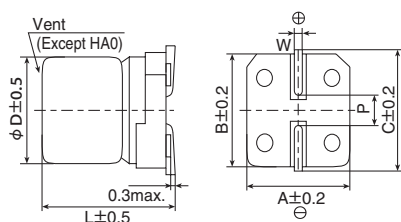
## SPECIFICATIONS

Items	Characteristics				
Category					
Temperature Range	-55 to +125℃				
Rated Voltage Range	16 to 35V <sub>dc</sub>				
Capacitance Tolerance	± 20% (M) (at 20℃, 120Hz)				
Leakage Current	I=0.01CV or 3 μ A, whichever is greater Where, I : Max. leakage current ( μ A), C: Nominal capacitance( μ F), V : Rated voltage(V) (at 20℃ after 2 minutes)				
Dissipation Factor (tan δ )	Rated voltage(V <sub>dc</sub> )	16V	25V	35V	(at 20℃, 120Hz)
	tan δ (Max.)	0.16	0.14	0.12	
Low Temperature Characteristics (Max. Impedance Ratio)	Z(-25℃)/Z(+20℃)≤1.5 Z(-55℃)/Z(+20℃)≤2.0 (at 100kHz)				
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 4,000 hours at 125℃.				
	Capacitance change	≤ ±30% of the initial value			
	D.F. (tan δ )	≤ 200% of the initial specified value			
	ESR	≤ 200% of the initial specified value			
	Leakage current	≤ The initial specified value			
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 125℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.				
	Capacitance change	≤ ±30% of the initial value			
	D.F. (tan δ )	≤ 200% of the initial specified value			
	ESR	≤ 200% of the initial specified value			
	Leakage current	≤ The initial specified value			
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them to the DC rated voltage at 85℃, 85% RH for 2,000 hours.				
	Appearance	No significant damage			
	Capacitance change	≤ ± 30% of the initial value			
	D.F. (tan δ )	≤ 200% of the initial specified value			
	ESR	≤ 200% of the initial specified value			
	Leakage current	≤ The initial specified value			

## DIMENSIONS [mm]

- Terminal Code : A
- Size code : HA0 to JC5

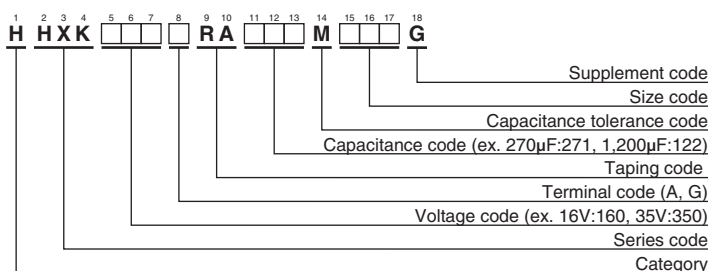
- Terminal Code : G(Vibration resistant structure)
- Size code : HA0 to JC5



Size Code	φD	L	A	B	C	W	P
HA0	8	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1
JA0	10	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5
JC5	10	12.5	10.3	10.3	11.0	0.7 to 1.1	4.5

▨ : Dummy terminals

## PART NUMBERING SYSTEM



## MARKING

EX) 35V270μF



## Rated voltage symbol

Rated voltage (V <sub>dc</sub> )	Symbol
16	C
25	E
35	V

Please refer to "Product code guide (conductive polymer hybrid type)"



## ◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap ( $\mu$ F)	Size code	ESR (m $\Omega$ max./20°C, 100kHz)	Rated ripple current (mA <sub>rms</sub> /125°C, 100kHz)	Part No.
16	560	HA0	20	3,100	HHXK160□RA561MHA0G
	1,000	JA0	18	3,500	HHXK160□RA102MJA0G
	1,200	JC5	15	4,100	HHXK160□RA122MJC5G
25	390	HA0	22	3,100	HHXK250□RA391MHA0G
	680	JA0	20	3,500	HHXK250□RA681MJA0G
	820	JC5	15	4,100	HHXK250□RA821MJC5G
35	270	HA0	22	3,100	HHXK350□RA271MHA0G
	470	JA0	20	3,500	HHXK350□RA471MJA0G
	560	JC5	16	4,100	HHXK350□RA561MJC5G

□ : Enter the appropriate terminal code.

## ◆RATED RIPLE CURRENT MULTIPLIERS

## ●Frequency Multipliers

Capacitance( $\mu$ F)	Frequency(Hz)										
	120	1k	2k	3k	5k	10k	15k	20k	30k	50k	100k to 500k
270 to 1,200	0.15	0.50	0.60	0.65	0.70	0.75	0.80	0.85	0.85	0.90	1.00



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
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The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
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In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

[Standardization](#)

[Available Items by Manufacturing Locations](#)

[Environmental Measures](#)

[Technical Note](#)

[Precautions and Guidelines](#)

[Recommended Soldering Conditions](#)

[Taping, Lead-preforming, Terminal and Packaging Options](#)