



## KYA Series

- Downsized from KY series
- Newly innovative electrolyte is employed to minimize impedance
- Endurance with ripple current : 6,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

KYA

↑  
Downsized  
KY

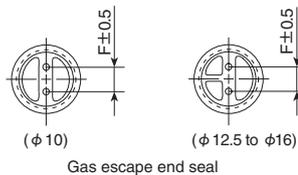
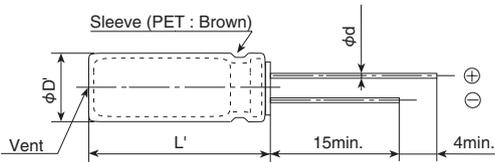


### SPECIFICATIONS

Items	Characteristics	
Category	-40 to +105°C	
Temperature Range	-40 to +105°C	
Rated Voltage Range	6.3 to 100V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 2 minutes)	
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 100V
	tan δ (Max.)	0.22 0.19 0.16 0.14 0.12 0.10 0.09 0.08
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 100V
	Z(-25°C)/Z(+20°C)	4 3 2 2 2 2 2 2 2
	Z(-40°C)/Z(+20°C)	8 6 4 3 3 3 3 3 3 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the specified period of time at 105°C.	
	Time	6.3 to 10V <sub>dc</sub> φ 10 : 6,000hours φ 12.5 to 16 : 8,000hours 16 to 100V <sub>dc</sub> φ 10 : 7,000hours φ 12.5 to 16 : 10,000hours
	Capacitance change	≤ ±25% of the initial value
	D.F. (tan δ)	≤ 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°C after exposing them for 500 hours at 105°C 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	≤ ±25% of the initial value
	D.F. (tan δ)	≤ 200% of the initial specified value
	Leakage current	≤ The initial specified value

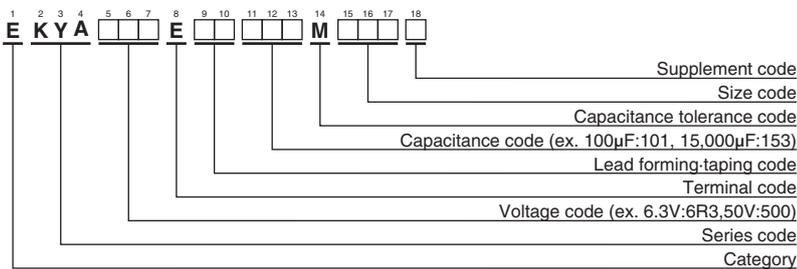
### DIMENSIONS [mm]

● Terminal Code : E



φD	10	12.5	16
φd	0.6	0.6	0.8
F	5.0	5.0	7.5
φD'	φD+0.5max.		
L'	L+1.5max.		

### PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"



### ◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA rms/105°C, 100kHz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA rms/105°C, 100kHz)	Part No.
			20°C	-10°C						20°C	-10°C		
6.3	1,200	10×12.5	0.080	0.32	865	EKYA6R3E□□122MJC5S	35	330	10×12.5	0.080	0.32	865	EKYA350E□□331MJC5S
	1,800	10×16	0.060	0.24	1,300	EKYA6R3E□□182MJ16S		470	10×16	0.060	0.24	1,300	EKYA350E□□471MJ16S
	2,700	10×20	0.046	0.18	1,400	EKYA6R3E□□272MJ20S		680	10×20	0.046	0.18	1,400	EKYA350E□□681MJ20S
	3,300	10×25	0.042	0.17	1,650	EKYA6R3E□□332MJ25S		820	10×25	0.042	0.17	1,650	EKYA350E□□821MJ25S
	3,900	12.5×20	0.035	0.12	1,900	EKYA6R3E□□392MK20S		1,000	12.5×20	0.035	0.12	1,900	EKYA350E□□102MK20S
	4,700	12.5×25	0.027	0.089	2,230	EKYA6R3E□□472MK25S		1,500	12.5×25	0.027	0.089	2,230	EKYA350E□□152MK25S
	5,600	12.5×25	0.027	0.089	2,230	EKYA6R3E□□562MK25S		2,200	16×25	0.021	0.060	2,930	EKYA350E□□222ML25S
	10,000	16×25	0.021	0.060	2,930	EKYA6R3E□□103ML25S		2,700	16×25	0.021	0.060	2,930	EKYA350E□□272ML25S
	12,000	16×31.5	0.017	0.050	3,450	EKYA6R3E□□123MLN3S		3,300	16×31.5	0.017	0.050	3,450	EKYA350E□□332MLN3S
	15,000	16×35.5	0.015	0.044	3,610	EKYA6R3E□□153MLP1S		3,900	16×35.5	0.015	0.044	3,610	EKYA350E□□392MLP1S
10	820	10×12.5	0.080	0.32	865	EKYA100E□□821MJC5S	50	180	10×12.5	0.12	0.48	760	EKYA500E□□181MJC5S
	1,000	10×12.5	0.080	0.32	865	EKYA100E□□102MJC5S		220	10×16	0.084	0.34	1,050	EKYA500E□□221MJ16S
	1,200	10×16	0.060	0.24	1,300	EKYA100E□□122MJ16S		330	10×20	0.060	0.24	1,220	EKYA500E□□331MJ20S
	1,800	10×20	0.046	0.18	1,400	EKYA100E□□182MJ20S		470	10×25	0.055	0.22	1,440	EKYA500E□□471MJ25S
	2,200	10×25	0.042	0.17	1,650	EKYA100E□□222MJ25S		470	12.5×20	0.045	0.15	1,660	EKYA500E□□471MK20S
	3,300	12.5×20	0.035	0.12	1,900	EKYA100E□□332MK20S		560	12.5×20	0.045	0.15	1,660	EKYA500E□□561MK20S
	3,900	12.5×25	0.027	0.089	2,230	EKYA100E□□392MK25S		820	12.5×25	0.034	0.11	1,950	EKYA500E□□821MK25S
	6,800	16×25	0.021	0.060	2,930	EKYA100E□□682ML25S		1,000	16×25	0.025	0.075	2,555	EKYA500E□□102ML25S
	10,000	16×31.5	0.017	0.050	3,450	EKYA100E□□103MLN3S		1,200	16×25	0.025	0.075	2,555	EKYA500E□□122ML25S
	12,000	16×35.5	0.015	0.044	3,610	EKYA100E□□123MLP1S		1,800	16×31.5	0.022	0.066	3,010	EKYA500E□□182MLN3S
16	680	10×12.5	0.080	0.32	865	EKYA160E□□681MJC5S	63	2,200	16×35.5	0.019	0.057	3,150	EKYA500E□□222MLP1S
	1,000	10×16	0.060	0.24	1,300	EKYA160E□□102MJ16S		100	10×12.5	0.11	0.44	725	EKYA630E□□101MJC5S
	1,500	10×20	0.046	0.18	1,400	EKYA160E□□152MJ20S		120	10×16	0.076	0.31	950	EKYA630E□□121MJ16S
	1,800	10×25	0.042	0.17	1,650	EKYA160E□□182MJ25S		220	10×20	0.056	0.23	1,200	EKYA630E□□221MJ20S
	2,200	12.5×20	0.035	0.12	1,900	EKYA160E□□222MK20S		330	10×25	0.046	0.19	1,350	EKYA630E□□331MJ25S
	3,300	12.5×25	0.027	0.089	2,230	EKYA160E□□332MK25S		330	12.5×20	0.041	0.13	1,570	EKYA630E□□331MK20S
	4,700	16×25	0.021	0.060	2,930	EKYA160E□□472ML25S		390	12.5×20	0.041	0.13	1,570	EKYA630E□□391MK20S
	5,600	16×25	0.021	0.060	2,930	EKYA160E□□562ML25S		470	12.5×25	0.031	0.093	1,990	EKYA630E□□471MK25S
	6,800	16×31.5	0.017	0.050	3,450	EKYA160E□□682MLN3S		560	12.5×25	0.031	0.093	1,990	EKYA630E□□561MK25S
	8,200	16×31.5	0.017	0.050	3,450	EKYA160E□□822MLN3S		1,000	16×25	0.025	0.075	2,730	EKYA630E□□102ML25S
25	10,000	16×35.5	0.015	0.044	3,610	EKYA160E□□103MLP1S	1,200	16×31.5	0.021	0.063	2,850	EKYA630E□□122MLN3S	
	470	10×12.5	0.080	0.32	865	EKYA250E□□471MJC5S	1,500	16×35.5	0.019	0.057	2,900	EKYA630E□□152MLP1S	
	680	10×16	0.060	0.24	1,300	EKYA250E□□681MJ16S	47	10×12.5	0.17	0.66	480	EKYA101E□□470MJC5S	
	1,000	10×20	0.046	0.18	1,400	EKYA250E□□102MJ20S	68	10×16	0.11	0.47	600	EKYA101E□□680MJ16S	
	1,200	10×25	0.042	0.17	1,650	EKYA250E□□122MJ25S	100	10×20	0.084	0.34	800	EKYA101E□□101MJ20S	
	1,500	12.5×20	0.035	0.12	1,900	EKYA250E□□152MK20S	150	10×25	0.069	0.28	900	EKYA101E□□151MJ25S	
	2,200	12.5×25	0.027	0.089	2,230	EKYA250E□□222MK25S	180	12.5×20	0.062	0.18	1,100	EKYA101E□□181MK20S	
	3,300	16×25	0.021	0.060	2,930	EKYA250E□□332ML25S	220	12.5×25	0.047	0.14	1,250	EKYA101E□□221MK25S	
	3,900	16×25	0.021	0.060	2,930	EKYA250E□□392ML25S	330	16×25	0.038	0.12	1,700	EKYA101E□□331ML25S	
	4,700	16×31.5	0.017	0.050	3,450	EKYA250E□□472MLN3S	470	16×31.5	0.032	0.095	1,850	EKYA101E□□471MLN3S	
5,600	16×35.5	0.015	0.044	3,610	EKYA250E□□562MLP1S	560	16×35.5	0.029	0.086	2,000	EKYA101E□□561MLP1S		

□□ : Enter the appropriate lead forming or taping code.

### ◆RATED RIPPLE CURRENT MULTIPLIERS

#### ● Frequency Multipliers

Capacitance(μF)	Frequency(Hz)	120	1k	10k	100k
47 to 180		0.40	0.75	0.90	1.00
220 to 560		0.50	0.85	0.94	1.00
680 to 1,800		0.60	0.87	0.95	1.00
2,200 to 3,900		0.75	0.90	0.95	1.00
4,700 to		0.85	0.95	0.98	1.00

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.



- 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.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.  
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.
- We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.
- We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.  
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
- We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.  
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 and Packaging](#)

[Available Terminals for Snap-in and Screw Mount Type](#)