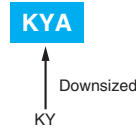


# KYA Series

- Downsized from KY series
- Newly innovative electrolyte is employed to minimize impedance
- Endurance with ripple current : 4,000 to 10,000 hours at 105°C
- Non solvent resistant type
- RoHS2 Compliant

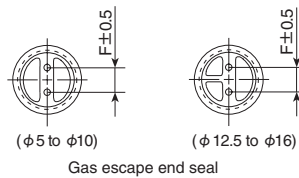
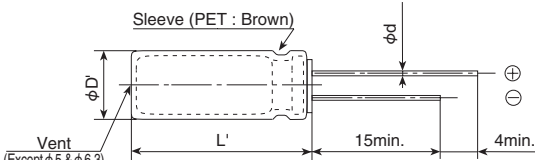


## SPECIFICATIONS

Items	Characteristics	
Category	-40 to +105°C	
Temperature Range		
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
	Z(-40°C)/Z(+20°C)	8 6 4 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> φ5 & 6.3 : 4,000hours φ8 & 10 : 6,000hours φ12.5 to 16 : 8,000hours 16 to 100V <sub>dc</sub> φ5 & 6.3 : 5,000hours φ8 & 10 : 7,000hours φ12.5 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

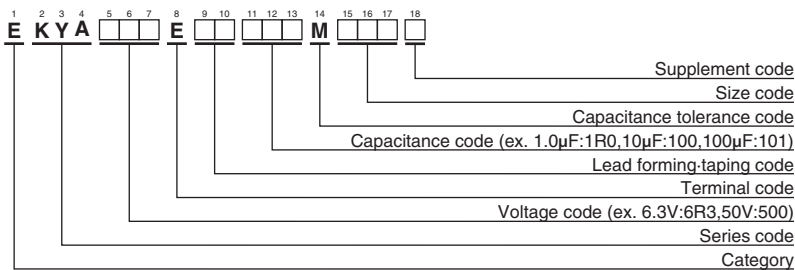
## DIMENSIONS [mm]

- Terminal Code : E



φD	5	6.3	8	10	12.5	16
φd	0.5	0.5	0.6	0.6	0.6	0.8
F	2.0	2.5	3.5	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 <sub>rms</sub> / 100kHz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	Impedance (Ω max./100kHz)		Rated ripple current (mA <sub>rms</sub> / 100kHz)	Part No.	
			20°C	-10°C						20°C	-10°C			
6.3	100	5×11	0.90	3.6	150	EKYA6R3E□□101ME11D	25	3,300	16×25	0.021	0.060	2,930	EKYA250E□□332ML25S	
	180	5×11	0.40	1.6	250	EKYA6R3E□□181ME11D		3,900	16×25	0.021	0.060	2,930	EKYA250E□□392ML25S	
	220	5×11	0.40	1.6	250	EKYA6R3E□□221ME11D		4,700	16×31.5	0.017	0.050	3,450	EKYA250E□□472MLN3S	
	330	6.3×11	0.22	0.87	400	EKYA6R3E□□331MF11D		5,600	16×35.5	0.015	0.044	3,610	EKYA250E□□562MLP1S	
	470	6.3×11	0.22	0.87	400	EKYA6R3E□□471MF11D		35	33	5×11	0.40	1.6	250	EKYA350E□□330ME11D
	820	8×11.5	0.13	0.52	640	EKYA6R3E□□821MHB5D			47	5×11	0.40	1.6	250	EKYA350E□□470ME11D
	1,200	10×12.5	0.080	0.32	865	EKYA6R3E□□122MJCS5			100	6.3×11	0.22	0.87	400	EKYA350E□□101MF11D
	1,200	8×15	0.087	0.35	840	EKYA6R3E□□122MH20D			220	8×11.5	0.13	0.52	640	EKYA350E□□221MHB5D
	1,500	8×20	0.069	0.27	1,050	EKYA6R3E□□152MH20D			270	8×15	0.087	0.35	840	EKYA350E□□271MH15D
	1,800	10×16	0.060	0.24	1,300	EKYA6R3E□□182MJ16S			330	10×12.5	0.080	0.32	865	EKYA350E□□331MJCS5
	2,700	10×20	0.046	0.18	1,400	EKYA6R3E□□272MJ20S			390	8×20	0.069	0.27	1,050	EKYA350E□□391MH20D
	3,300	10×25	0.042	0.17	1,650	EKYA6R3E□□332MJ25S			470	10×16	0.060	0.24	1,300	EKYA350E□□471MJ16S
	3,900	12.5×20	0.035	0.12	1,900	EKYA6R3E□□392MK20S			680	10×20	0.046	0.18	1,400	EKYA350E□□681MJ20S
	4,700	12.5×25	0.027	0.089	2,230	EKYA6R3E□□472MK25S			820	10×25	0.042	0.17	1,650	EKYA350E□□821MJ25S
	5,600	12.5×25	0.027	0.089	2,230	EKYA6R3E□□562MK25S			1,000	12.5×20	0.035	0.12	1,900	EKYA350E□□102MK20S
	10,000	16×25	0.021	0.060	2,930	EKYA6R3E□□103MLN3S			1,500	12.5×25	0.027	0.089	2,230	EKYA350E□□152MK25S
12,000	16×31.5	0.017	0.050	3,450	EKYA6R3E□□123MLN3S	2,200	16×25		0.021	0.060	2,930	EKYA350E□□222ML25S		
15,000	16×35.5	0.015	0.044	3,610	EKYA6R3E□□153MLP1S	2,700	16×25		0.021	0.060	2,930	EKYA350E□□272ML25S		
10	100	5×11	0.90	3.6	150	EKYA100E□□101ME11D	3,300		16×31.5	0.017	0.050	3,450	EKYA350E□□332MLN3S	
	120	5×11	0.40	1.6	250	EKYA100E□□121ME11D	3,900		16×35.5	0.015	0.044	3,610	EKYA350E□□392MLP1S	
	330	6.3×11	0.22	0.87	400	EKYA100E□□331MF11D	50	1.0	5×11	4.0	16	30	EKYA500E□□1R0ME11D	
	560	8×11.5	0.13	0.52	640	EKYA100E□□561MHB5D		2.2	5×11	2.5	10	43	EKYA500E□□2R2ME11D	
	820	8×15	0.087	0.35	840	EKYA100E□□821MH15D		3.3	5×11	2.2	8.8	53	EKYA500E□□3R3ME11D	
	820	10×12.5	0.080	0.32	865	EKYA100E□□821MJCS5		4.7	5×11	1.9	7.6	88	EKYA500E□□4R7ME11D	
	1,000	10×12.5	0.080	0.32	865	EKYA100E□□102MJCS5		10	5×11	1.5	6.0	100	EKYA500E□□100ME11D	
	1,200	8×20	0.069	0.27	1,050	EKYA100E□□122MH20D		22	5×11	0.70	2.8	180	EKYA500E□□220ME11D	
	1,200	10×16	0.060	0.24	1,300	EKYA100E□□122MJ16S		27	5×11	0.70	2.8	250	EKYA500E□□270ME11D	
	1,800	10×20	0.046	0.18	1,400	EKYA100E□□182MJ20S		47	6.3×11	0.30	1.2	295	EKYA500E□□470MF11D	
	2,200	10×25	0.042	0.17	1,650	EKYA100E□□222MJ25S		56	6.3×11	0.30	1.2	295	EKYA500E□□560MF11D	
	3,300	12.5×20	0.035	0.12	1,900	EKYA100E□□332MK20S		100	8×11.5	0.17	0.68	555	EKYA500E□□101MHB5D	
3,900	12.5×25	0.027	0.089	2,230	EKYA100E□□392MK25S	150		8×15	0.12	0.48	730	EKYA500E□□151MH15D		
6,800	16×25	0.021	0.060	2,930	EKYA100E□□682ML25S	180		10×12.5	0.12	0.48	760	EKYA500E□□181MJCS5		
10,000	16×31.5	0.017	0.050	3,450	EKYA100E□□103MLN3S	180	8×20	0.091	0.36	910	EKYA500E□□181MH20D			
12,000	16×35.5	0.015	0.044	3,610	EKYA100E□□123MLP1S	220	10×16	0.084	0.34	1,050	EKYA500E□□221MJ16S			
16	47	5×11	0.40	1.6	250	EKYA160E□□470ME11D	330	10×20	0.060	0.24	1,220	EKYA500E□□331MJ20S		
	100	5×11	0.40	1.6	250	EKYA160E□□101ME11D	470	10×25	0.055	0.22	1,440	EKYA500E□□471MJ25S		
	220	6.3×11	0.22	0.87	400	EKYA160E□□221MF11D	470	12.5×20	0.045	0.15	1,660	EKYA500E□□471MK20S		
	270	6.3×11	0.22	0.87	400	EKYA160E□□271MF11D	560	12.5×20	0.045	0.15	1,660	EKYA500E□□561MK20S		
	470	8×11.5	0.13	0.52	640	EKYA160E□□471MHB5D	820	12.5×25	0.034	0.11	1,950	EKYA500E□□821MK25S		
	680	8×15	0.087	0.35	840	EKYA160E□□681MH15D	1,000	16×25	0.025	0.075	2,555	EKYA500E□□102ML25S		
	680	10×12.5	0.080	0.32	865	EKYA160E□□681MJCS5	1,200	16×25	0.025	0.075	2,555	EKYA500E□□122ML25S		
	820	8×20	0.069	0.27	1,050	EKYA160E□□821MH20D	1,800	16×31.5	0.022	0.066	3,010	EKYA500E□□182MLN3S		
	1,000	10×16	0.060	0.24	1,300	EKYA160E□□102MJ16S	2,200	16×35.5	0.019	0.057	3,150	EKYA500E□□222MLP1S		
	1,500	10×20	0.046	0.18	1,400	EKYA160E□□152MJ20S	63	10	5×11	0.88	3.5	173	EKYA630E□□100ME11D	
	1,800	10×25	0.042	0.17	1,650	EKYA160E□□182MJ25S		15	5×11	0.88	3.5	173	EKYA630E□□150ME11D	
	2,200	12.5×20	0.035	0.12	1,900	EKYA160E□□222MK20S		33	6.3×11	0.35	1.4	278	EKYA630E□□330MF11D	
	3,300	12.5×25	0.027	0.089	2,230	EKYA160E□□332MK25S		56	8×11.5	0.22	0.88	500	EKYA630E□□560MHB5D	
	4,700	16×25	0.021	0.060	2,930	EKYA160E□□472ML25S		82	8×15	0.16	0.64	665	EKYA630E□□820MH15D	
	5,600	16×25	0.021	0.060	2,930	EKYA160E□□562ML25S		100	10×12.5	0.11	0.44	725	EKYA630E□□101MJCS5	
	6,800	16×31.5	0.017	0.050	3,450	EKYA160E□□682MLN3S		120	8×20	0.12	0.48	820	EKYA630E□□121MH20D	
8,200	16×31.5	0.017	0.050	3,450	EKYA160E□□822MLN3S	120		10×16	0.076	0.31	950	EKYA630E□□121MJ16S		
10,000	16×35.5	0.015	0.044	3,610	EKYA160E□□103MLP1S	220		10×20	0.056	0.23	1,200	EKYA630E□□221MJ20S		
25	33	5×11	0.40	1.6	250	EKYA250E□□330ME11D		330	10×25	0.046	0.19	1,350	EKYA630E□□331MJ25S	
	47	5×11	0.40	1.6	250	EKYA250E□□470ME11D		330	12.5×20	0.041	0.13	1,570	EKYA630E□□331MK20S	
	68	5×11	0.40	1.6	250	EKYA250E□□680ME11D		390	12.5×20	0.041	0.13	1,570	EKYA630E□□391MK20S	
	150	6.3×11	0.22	0.87	400	EKYA250E□□151MF11D		470	12.5×25	0.031	0.093	1,990	EKYA630E□□471MK25S	
	330	8×11.5	0.13	0.52	640	EKYA250E□□331MHB5D		560	12.5×25	0.031	0.093	1,990	EKYA630E□□561MK25S	
	390	8×15	0.087	0.35	840	EKYA250E□□391MH15D		1,000	16×25	0.025	0.075	2,730	EKYA630E□□102ML25S	
	470	10×12.5	0.080	0.32	865	EKYA250E□□471MJCS5		1,200	16×31.5	0.021	0.063	2,850	EKYA630E□□122MLN3S	
	560	8×20	0.069	0.27	1,050	EKYA250E□□561MH20D	1,500	16×35.5	0.019	0.057	2,900	EKYA630E□□152MLP1S		
	680	10×16	0.060	0.24	1,300	EKYA250E□□681MJ16S	100	1.0	5×11	4.5	15	20	EKYA101E□□1R0ME11D	
	1,000	10×20	0.046	0.18	1,400	EKYA250E□□102MJ20S		2.2	5×11	3.0	13	30	EKYA101E□□2R2ME11D	
	1,200	10×25	0.042	0.17	1,650	EKYA250E□□122MJ25S		3.3	5×11	2.7	11	40	EKYA101E□□3R3ME11D	
	1,500	12.5×20	0.035	0.12	1,900	EKYA250E□□152MK20S		4.7	5×11	2.5	10	65	EKYA101E□□4R7ME11D	
	2,200	12.5×25	0.027	0.089	2,230	EKYA250E□□222MK25S		6.8	5×11	1.4	5.6	125	EKYA101E□□6R8ME11D	

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

Production of the products shown in [ ] is scheduled to be discontinued.

Product specifications in this catalog are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.



## KYA Series

### ◆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.
			20°C	-10°C		
100	10	6.3×11	0.57	2.3	205	EKYA101E□□100MF11D
	15	6.3×11	0.57	2.3	205	EKYA101E□□150MF11D
	27	8×11.5	0.36	1.4	355	EKYA101E□□270MHB5D
	39	8×15	0.25	1.0	450	EKYA101E□□390MH15D
	47	10×12.5	0.17	0.66	480	EKYA101E□□470MJC5S
	56	8×20	0.19	0.76	565	EKYA101E□□560MH20D
	68	10×16	0.11	0.47	600	EKYA101E□□680MJ16S
	100	10×20	0.084	0.34	800	EKYA101E□□101MJ20S
	150	10×25	0.069	0.28	900	EKYA101E□□151MJ25S
	180	12.5×20	0.062	0.18	1,100	EKYA101E□□181MK20S
	220	12.5×25	0.047	0.14	1,250	EKYA101E□□221MK25S
	330	16×25	0.038	0.12	1,700	EKYA101E□□331ML25S
	470	16×31.5	0.032	0.095	1,850	EKYA101E□□471MLN3S
	560	16×35.5	0.029	0.086	2,000	EKYA101E□□561MLP1S

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

Production of the products shown in   is scheduled to be discontinued.

### ◆RATED RIPPLE CURRENT MULTIPLIERS

#### ⊙ Frequency Multipliers

Capacitance(μF)	Frequency(Hz)			
	120	1k	10k	100k
1.0 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](#)