

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
- RoHS Compliant

KYA

↓ Downsized
KY P166

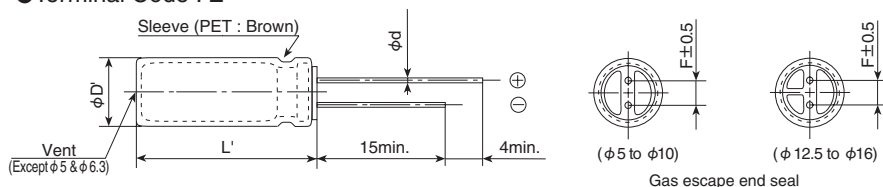


SPECIFICATIONS

Items	Characteristics									
Category	Temperature Range									
Rated Voltage Range	-40 to +105°C									
Capacitance Tolerance	6.3 to 100V _{dc}									
Leakage Current	± 20% (M) (at 20°C, 120Hz)									
Dissipation Factor (tan δ)	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)									
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	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)									
Endurance	Rated voltage (V _{dc})	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)
Shelf Life	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 _{dc}	φ 5 & 6.3 : 4,000hours			φ 8 & 10 : 6,000hours		φ 12.5 to 16 : 8,000hours		
		16 to 100V _{dc}	φ 5 & 6.3 : 5,000hours			φ 8 & 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									
	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									

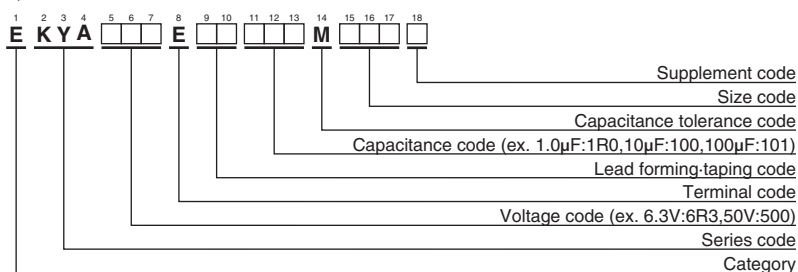
DIMENSIONS [mm]

- 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 _{dc})	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		
6.3	100	5×11	0.90	3.6	150	EKYA6R3E□□101ME11D
	180	5×11	0.40	1.6	250	EKYA6R3E□□181ME11D
	220	5×11	0.40	1.6	250	EKYA6R3E□□221ME11D
	330	6.3×11	0.22	0.87	400	EKYA6R3E□□331MF11D
	470	6.3×11	0.22	0.87	400	EKYA6R3E□□471MF11D
	820	8×11.5	0.13	0.52	640	EKYA6R3E□□821MHB5D
	1,200	10×12.5	0.080	0.32	865	EKYA6R3E□□122MJC5S
	1,200	8×15	0.087	0.35	840	EKYA6R3E□□122MH15D
	1,500	8×20	0.069	0.27	1,050	EKYA6R3E□□152MH20D
	1,800	10×16	0.060	0.24	1,300	EKYA6R3E□□182MJ16S
	2,700	10×20	0.046	0.18	1,400	EKYA6R3E□□272MJ20S
	3,300	10×25	0.042	0.17	1,650	EKYA6R3E□□332MJ25S
	3,900	12.5×20	0.035	0.12	1,900	EKYA6R3E□□392MK20S
	4,700	12.5×25	0.027	0.089	2,230	EKYA6R3E□□472MK25S
	5,600	12.5×25	0.027	0.089	2,230	EKYA6R3E□□562MK25S
10	10,000	16×25	0.021	0.060	2,930	EKYA6R3E□□103MLN3S
	12,000	16×31.5	0.017	0.050	3,450	EKYA6R3E□□123MLN3S
	15,000	16×35.5	0.015	0.044	3,610	EKYA6R3E□□153MLP1S
	100	5×11	0.90	3.6	150	EKYA100E□□101ME11D
	120	5×11	0.40	1.6	250	EKYA100E□□121ME11D
	330	6.3×11	0.22	0.87	400	EKYA100E□□331MF11D
	560	8×11.5	0.13	0.52	640	EKYA100E□□561MHB5D
	820	8×15	0.087	0.35	840	EKYA100E□□821MH15D
	820	10×12.5	0.080	0.32	865	EKYA100E□□821MJC5S
	1,000	10×12.5	0.080	0.32	865	EKYA100E□□102MJC5S
	1,200	8×20	0.069	0.27	1,050	EKYA100E□□122MH20D
	1,200	10×16	0.060	0.24	1,300	EKYA100E□□122MJ16S
16	1,800	10×20	0.046	0.18	1,400	EKYA100E□□182MJ20S
	2,200	10×25	0.042	0.17	1,650	EKYA100E□□222MJ25S
	3,300	12.5×20	0.035	0.12	1,900	EKYA100E□□332MK20S
	3,900	12.5×25	0.027	0.089	2,230	EKYA100E□□392MK25S
	6,800	16×25	0.021	0.060	2,930	EKYA100E□□682MLN3S
	10,000	16×31.5	0.017	0.050	3,450	EKYA100E□□103MLN3S
	12,000	16×35.5	0.015	0.044	3,610	EKYA100E□□123MLP1S
	47	5×11	0.40	1.6	250	EKYA160E□□470ME11D
	100	5×11	0.40	1.6	250	EKYA160E□□101ME11D
	220	6.3×11	0.22	0.87	400	EKYA160E□□221MF11D
	270	6.3×11	0.22	0.87	400	EKYA160E□□271MF11D
	470	8×11.5	0.13	0.52	640	EKYA160E□□471MHB5D
25	680	8×15	0.087	0.35	840	EKYA160E□□681MH15D
	680	10×12.5	0.080	0.32	865	EKYA160E□□681MJC5S
	820	8×20	0.069	0.27	1,050	EKYA160E□□821MH20D
	1,000	10×16	0.060	0.24	1,300	EKYA160E□□102MJ16S
	1,500	10×20	0.046	0.18	1,400	EKYA160E□□152MJ20S
	1,800	10×25	0.042	0.17	1,650	EKYA160E□□182MJ25S
	2,200	12.5×20	0.035	0.12	1,900	EKYA160E□□222MK20S
	3,300	12.5×25	0.027	0.089	2,230	EKYA160E□□332MK25S
	4,700	16×25	0.021	0.060	2,930	EKYA160E□□472MLN3S
	5,600	16×25	0.021	0.060	2,930	EKYA160E□□562MLN3S
	6,800	16×31.5	0.017	0.050	3,450	EKYA160E□□682MLN3S
	8,200	16×31.5	0.017	0.050	3,450	EKYA160E□□822MLN3S
35	10,000	16×35.5	0.015	0.044	3,610	EKYA160E□□103MLP1S
	33	5×11	0.40	1.6	250	EKYA250E□□330ME11D
	47	5×11	0.40	1.6	250	EKYA250E□□470ME11D
	68	5×11	0.40	1.6	250	EKYA250E□□680ME11D
	150	6.3×11	0.22	0.87	400	EKYA250E□□151MF11D
	330	8×11.5	0.13	0.52	640	EKYA250E□□331MHB5D
	390	8×15	0.087	0.35	840	EKYA250E□□391MH15D
	470	10×12.5	0.080	0.32	865	EKYA250E□□471MJC5S
	560	8×20	0.069	0.27	1,050	EKYA250E□□561MH20D
	680	10×16	0.060	0.24	1,300	EKYA250E□□681MJ16S
	1,000	10×20	0.046	0.18	1,400	EKYA250E□□102MJ20S
	1,200	10×25	0.042	0.17	1,650	EKYA250E□□122MJ25S
50	1,500	12.5×20	0.035	0.12	1,900	EKYA250E□□152MK20S
	2,200	12.5×25	0.027	0.089	2,230	EKYA250E□□222MK25S
	3,300	16×25	0.021	0.060	2,930	EKYA250E□□332MLN3S
	4,700	16×25	0.021	0.060	2,930	EKYA250E□□472MLN3S
	5,600	16×31.5	0.017	0.050	3,450	EKYA250E□□562MLN3S
	6,800	16×31.5	0.017	0.050	3,450	EKYA250E□□682MLN3S
	8,200	16×31.5	0.017	0.050	3,450	EKYA250E□□822MLN3S
	10,000	16×35.5	0.015	0.044	3,610	EKYA250E□□103MLP1S
	1.0	5×11	4.0	16	30	EKYA500E□□1R0ME11D
	2.2	5×11	2.5	10	43	EKYA500E□□2R2ME11D
	3.3	5×11	2.2	8.8	53	EKYA500E□□3R3ME11D
	4.7	5×11	1.9	7.6	88	EKYA500E□□4R7ME11D
63	10	5×11	1.5	6.0	100	EKYA500E□□100ME11D
	22	5×11	0.70	2.8	180	EKYA500E□□220ME11D
	27	5×11	0.70	2.8	250	EKYA500E□□270ME11D
	47	6.3×11	0.30	1.2	295	EKYA500E□□470MF11D
	56	6.3×11	0.30	1.2	295	EKYA500E□□560MF11D
	100	8×11.5	0.17	0.68	555	EKYA500E□□101MHB5D
	150	8×15	0.12	0.48	730	EKYA500E□□151MH15D
	180	10×12.5	0.12	0.48	760	EKYA500E□□181MJC5S
	180	8×20	0.091	0.36	910	EKYA500E□□181MH20D
	220	10×16	0.084	0.34	1,050	EKYA500E□□221MJ16S
	330	10×20	0.060	0.24	1,220	EKYA500E□□331MJ20S
	470	10×25	0.055	0.22	1,440	EKYA500E□□471MJ25S
100	470	12.5×20	0.045	0.15	1,660	EKYA500E□□471MK20S
	560	12.5×20	0.045	0.15	1,660	EKYA500E□□561MK20S
	820	12.5×25	0.034	0.11	1,950	EKYA500E□□821MK25S
	1,000	16×25	0.025	0.075	2,555	EKYA500E□□102MLN3S
	1,200	16×25	0.025	0.075	2,555	EKYA500E□□122MLN3S
	1,800	16×31.5	0.022	0.066	3,010	EKYA500E□□182MLN3S
	2,200	16×35.5	0.019	0.057	3,150	EKYA500E□□222MLP1S
	10	5×11	0.88	3.5	173	EKYA630E□□100ME11D
	15	5×11	0.88	3.5	173	EKYA630E□□150ME11D
	33	6.3×11	0.35	1.4	278	EKYA630E□□330MF11D
	56	8×11.5	0.22	0.88	500	EKYA630E□□560MHB5D
	82	8×15	0.16	0.64	665	EKYA630E□□820MH15D
100	100	10×12.5	0.11	0.44	725	EKYA630E□□101MJC5S
	120	8×20	0.12	0.48	820	EKYA630E□□121MH20D
	120	10×16	0.076	0.31	950	EKYA630E□□121MJ16S
	220	10×20	0.056	0.23	1,200	EKYA630E□□221MJ20S
	330	10×25	0.046	0.19	1,350	EKYA630E□□331MJ25S
	330	12.5×20	0.041	0.13	1,570	EKYA630E□□331MK20S
	390	12.5×20	0.041	0.13	1,570	EKYA630E□□391MK20S
	470	12.5×25	0.031	0.093	1,990	EKYA630E□□471MK25S
	560	12.5×25	0.031	0.093	1,990	EKYA630E□□561MK25S
	1,000	16×25	0.025	0.075	2,730	EKYA630E□□102MLN3S
	1,200	16×31.5	0.021	0.063	2,850	EKYA630E□□122MLN3S
	1,500	16×35.5	0.019	0.057	2,900	EKYA630E□□152MLP1S
100	1.0	5×11	4.5	15	20	EKYA101E□□1R0ME11D
	2.2	5×11	3.0	13	30	EKYA101E□□2R2ME11D
	3.3	5×11	2.7	11	40	EKYA101E□□3R3ME11D
	4.7	5×11	2.5	10	65	EKYA101E□□4R7ME11D
	6.8	5×11	1.4	5.6	125	EKYA101E□□6R8ME11D

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

KYA Series

◆STANDARD RATINGS

WV (V _{dc})	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.

◆RATED RIPLE 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 endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.