

**KY Series**

- Newly innovative electrolyte is employed to minimize ESR
- 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	-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	80V	100V	
	tan δ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	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	80V	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 5 & 6.3 : 4,000hours		φ 8 & 10 : 6,000hours		φ 12.5 to 18 : 8,000hours				
		16 to 100V <sub>dc</sub>	φ 5 & 6.3 : 5,000hours		φ 8 & 10 : 7,000hours		φ 12.5 to 18 : 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	18
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	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> /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 <sub>rms</sub> /105°C, 100kHz)	Part No.
			20°C	-10°C						20°C	-10°C		
35	2,200	18×25	0.019	0.049	3,140	EKY-350E□□222MM25S	63	680	16×25	0.025	0.075	2,600	EKY-630E□□681ML25S
	2,700	16×35.5	0.015	0.044	3,610	EKY-350E□□272MLP1S		680	18×20	0.030	0.090	2,500	EKY-630E□□681MM20S
	2,700	18×31.5	0.015	0.040	4,170	EKY-350E□□272MMN3S		820	16×31.5	0.021	0.063	2,850	EKY-630E□□821MLN3S
	3,300	16×40	0.013	0.038	4,080	EKY-350E□□332ML40S		820	18×25	0.024	0.072	2,800	EKY-630E□□821MM25S
	3,300	18×35.5	0.014	0.038	4,220	EKY-350E□□332MMP1S		1,000	16×35.5	0.019	0.057	2,900	EKY-630E□□102MLP1S
	3,900	18×40	0.012	0.032	4,280	EKY-350E□□392MM40S		1,200	16×40	0.018	0.054	3,400	EKY-630E□□122ML40S
50	1.0	5×11	4.0	16.0	30	EKY-500E□□1R0ME11D	80	1,200	18×31.5	0.020	0.060	3,300	EKY-630E□□102MMN3S
	2.2	5×11	2.5	10.0	43	EKY-500E□□2R2ME11D		1,500	18×35.5	0.018	0.054	3,400	EKY-630E□□152MMP1S
	3.3	5×11	2.2	8.8	53	EKY-500E□□3R3ME11D		1,800	18×40	0.017	0.051	3,500	EKY-630E□□182MM40S
	4.7	5×11	1.9	7.6	88	EKY-500E□□4R7ME11D		68	10×12.5	0.17	0.66	480	EKY-800E□□680MJC5S
	10	5×11	1.5	6.0	100	EKY-500E□□100ME11D		100	10×16	0.11	0.47	600	EKY-800E□□101MJ16S
	22	5×11	0.70	2.8	180	EKY-500E□□220ME11D		120	10×20	0.084	0.34	800	EKY-800E□□121MJ20S
	56	6.3×11	0.30	1.2	295	EKY-500E□□560MF11D		150	10×25	0.069	0.28	900	EKY-800E□□151MJ25S
	100	8×11.5	0.17	0.68	555	EKY-500E□□101MHB5D		150	12.5×16	0.11	0.34	750	EKY-800E□□151MK16S
	120	8×15	0.12	0.48	730	EKY-500E□□121MH15D		220	12.5×20	0.062	0.18	1,100	EKY-800E□□101MK20S
	150	10×12.5	0.12	0.48	760	EKY-500E□□151MJC5S		330	12.5×25	0.047	0.14	1,250	EKY-800E□□331MK25S
	180	8×20	0.091	0.36	910	EKY-500E□□181MH20D		330	16×20	0.048	0.15	1,350	EKY-800E□□331ML20S
	220	10×16	0.084	0.34	1,050	EKY-500E□□221MJ16S		390	12.5×30	0.042	0.13	1,500	EKY-800E□□391MK30S
	270	10×20	0.060	0.24	1,220	EKY-500E□□271MJ20S		470	12.5×35	0.036	0.11	1,650	EKY-800E□□471MK35S
	270	12.5×15	0.061	0.20	1,260	EKY-500E□□271MK15S		470	16×25	0.038	0.12	1,700	EKY-800E□□471ML25S
	330	10×25	0.055	0.22	1,440	EKY-500E□□331MJ25S		470	18×20	0.045	0.14	1,500	EKY-800E□□471MM20S
	470	10×30	0.043	0.17	1,690	EKY-500E□□471MJ30S		560	12.5×40	0.032	0.095	1,800	EKY-800E□□561MK40S
	470	12.5×20	0.045	0.15	1,660	EKY-500E□□471MK20S		680	16×31.5	0.032	0.095	1,850	EKY-800E□□681MLN3S
	470	16×15	0.055	0.17	1,690	EKY-500E□□471ML15S		680	18×25	0.036	0.11	1,750	EKY-800E□□681MM25S
	560	12.5×25	0.034	0.11	1,950	EKY-500E□□561MK25S		820	16×35.5	0.029	0.086	2,000	EKY-800E□□821MLP1S
	560	18×15	0.054	0.15	1,930	EKY-500E□□561MM15S		820	18×31.5	0.030	0.090	1,900	EKY-800E□□821MMN3S
	680	12.5×30	0.030	0.10	2,310	EKY-500E□□681MK30S		1,000	16×40	0.027	0.081	2,200	EKY-800E□□102ML40S
820	12.5×35	0.025	0.083	2,510	EKY-500E□□821MK35S	1,000	18×35.5	0.027	0.081	2,200	EKY-800E□□102MMP1S		
820	16×20	0.034	0.10	2,210	EKY-500E□□821ML20S	1,200	18×40	0.026	0.077	2,700	EKY-800E□□122MM40S		
1,000	12.5×40	0.021	0.069	2,920	EKY-500E□□102MK40S	6.8	5×11	1.4	5.6	125	EKY-101E□□6R8ME11D		
1,000	16×25	0.025	0.075	2,555	EKY-500E□□102ML25S	15	6.3×11	0.57	2.3	205	EKY-101E□□150MF11D		
1,000	18×20	0.036	0.097	2,490	EKY-500E□□102MM20S	27	8×11.5	0.36	1.4	355	EKY-101E□□270MHB5D		
1,200	16×31.5	0.022	0.066	3,010	EKY-500E□□122MLN3S	39	8×15	0.25	1.0	450	EKY-101E□□390MH15D		
1,200	18×25	0.026	0.070	2,740	EKY-500E□□122MM25S	47	10×12.5	0.17	0.66	480	EKY-101E□□470MJC5S		
1,500	16×35.5	0.019	0.057	3,150	EKY-500E□□152MLP1S	56	8×20	0.19	0.76	565	EKY-101E□□560MH20D		
1,800	16×40	0.016	0.048	3,710	EKY-500E□□182ML40S	68	10×16	0.11	0.47	600	EKY-101E□□680MJ16S		
1,800	18×31.5	0.021	0.057	3,635	EKY-500E□□182MMN3S	82	10×20	0.084	0.34	800	EKY-101E□□820MJ20S		
2,200	18×35.5	0.017	0.046	3,680	EKY-500E□□222MMP1S	100	12.5×16	0.11	0.34	750	EKY-101E□□101MK16S		
2,700	18×40	0.014	0.038	3,800	EKY-500E□□272MM40S	120	10×25	0.069	0.28	900	EKY-101E□□121MJ25S		
63	15	5×11	0.88	3.5	165	EKY-630E□□150ME11D	100	150	12.5×20	0.062	0.18	1,100	EKY-101E□□151MK20S
	33	6.3×11	0.35	1.4	265	EKY-630E□□330MF11D		220	12.5×25	0.047	0.14	1,250	EKY-101E□□221MK25S
	56	8×11.5	0.22	0.88	500	EKY-630E□□560MHB5D		220	16×20	0.048	0.15	1,350	EKY-101E□□221ML20S
	82	8×15	0.16	0.64	665	EKY-630E□□820MH15D		270	12.5×30	0.042	0.13	1,500	EKY-101E□□271MK30S
	82	10×12.5	0.11	0.44	690	EKY-630E□□820MJC5S		330	12.5×35	0.036	0.11	1,650	EKY-101E□□331MK35S
	120	8×20	0.12	0.48	820	EKY-630E□□121MH20D		330	16×25	0.038	0.12	1,700	EKY-101E□□331ML25S
	120	10×16	0.076	0.31	950	EKY-630E□□121MJ16S		330	18×20	0.045	0.14	1,500	EKY-101E□□331MM20S
	180	10×20	0.056	0.23	1,150	EKY-630E□□181MJ20S		390	12.5×40	0.032	0.095	1,800	EKY-101E□□391MK40S
	180	12.5×16	0.072	0.29	1,150	EKY-630E□□181MK16S		470	16×31.5	0.032	0.095	1,850	EKY-101E□□471MLN3S
	220	10×25	0.046	0.19	1,350	EKY-630E□□221MJ25S		470	18×25	0.036	0.11	1,750	EKY-101E□□471MM25S
	270	12.5×20	0.041	0.13	1,500	EKY-630E□□271MK20S		560	16×35.5	0.029	0.086	2,000	EKY-101E□□561MLP1S
	390	12.5×25	0.031	0.093	1,900	EKY-630E□□391MK25S		560	18×31.5	0.030	0.090	1,900	EKY-101E□□561MMN3S
	470	12.5×30	0.028	0.084	2,300	EKY-630E□□471MK30S		680	16×40	0.027	0.081	2,200	EKY-101E□□681ML40S
	470	16×20	0.032	0.096	2,000	EKY-630E□□471ML20S		680	18×35.5	0.027	0.081	2,200	EKY-101E□□681MMP1S
	560	12.5×35	0.024	0.072	2,500	EKY-630E□□561MK35S		820	18×40	0.026	0.077	2,700	EKY-101E□□821MM40S
	680	12.5×40	0.021	0.063	2,800	EKY-630E□□681MK40S							

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

◆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 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.