

WK Series

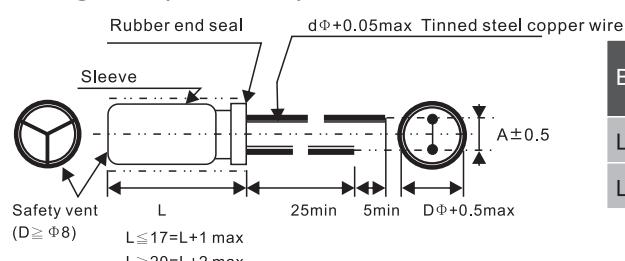
- 105°C, Long life 4000~10000 hours ,LOW ESR series(紋波疊加)
- 採用了新型高穩定、低電阻電解液、實現了低ESR低阻抗



• SPECIFICATIONS

Items	Characteristics															
Category Temperature Range	- 40 to +105°C															
Rated Voltage Range	6.3V to 100 Vdc															
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C ,120Hz)															
Leakage Current	I=0.01CV or $3\mu A$, 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 (Vdc)	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							
	For capacitance>1000uF.and 2% per another 1000uF (at 20°C ,120Hz)															
Low Temperature Characteristics	Impedance ration max at 120Hz															
	Working voltage	6.3v	10v	16v	25v	35v	50v	63v	100v							
	Z-25°C/ Z+20°C	4	2	2	2	2	2	2	2							
Load. Life	Z-40°C/ Z+20°C	8	6	4	3	3	3	3	3							
	The following specifications shall be satisfied when the capacitors are restored to 20°C after the voltage is applied for the specific at 105°C															
	Case Size	$\Phi D \leq 6.3$		$\Phi D \leq 8, 10$		$\Phi D \geq 13$										
	Rated Voltage	6.3 ~ 10wv		4000H		6000H		8000H								
		16 ~ 100wv		5000H		7000H		10000H								
	Capacitance change	$\leq \pm 25\%$ of the initial value														
Shelf Life	DF (tan δ)	$\leq 200\%$ of the initial specified value														
	Leakage current	\leq The initial specified value														
	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 105°C without voltage applied.															
Ripple Current Multiplier	Capacitance change	$\leq \pm 20\%$ of the initial value														
	DF (tan δ)	$\leq 200\%$ of the initial specified value														
	Leakage current	\leq The initial specified value														
Temperature coefficient																
Temperature(°C)		~55	60	70	85	105										
Factor		2.20	2.10	2.00	1.75	1.00										
Frequency coefficient																
cap freq		60	120	1k	10k	100k										
~100		0.30	0.40	0.75	0.90	1.00										
100~1000		0.40	0.50	0.85	0.94	1.00										
1000up		0.50	0.75	0.90	0.95	1.00										

• Diagram: (Unit: mm)



Body Dia ΦD	5	6	8	10	13 $L \leq 21$	16	18 $L \geq 25$
Lead Dia Φd	0.5			0.6	0.6	0.8	0.8
Lead Space A	2	2.5	3.5		5	7.5	7.5/10

Chip Type SMD	Miniature Type	General Purpose	High Frequency Low Impedance
High Voltage High Reliability	Non-polar Type	Large Size Snap-in	Large Size Screw
X Metallized Polypropylene Film Capacitors			

● STANDARD RATING

Cap(μF)	Vdc	6.3v				10v				
		Item	Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	
					20°C	-10°C			20°C	-10°C
100							5*11	215	0.580	2.300
150		5*11		200	0.570	2.300	6.3*11	230	0.580	2.300
220		6.3*11		300	0.230	0.950	6.3*11	340	0.220	0.870
330		6.3*11		340	0.160	0.870	6.3*11 8*12	380	0.220	0.870
470		8*12		345	0.160	0.580	8*12	640	0.130	0.520
680		8*12		640	0.130	0.520	8*16	845	0.086	0.350
820		8*16		865	0.080	0.320	10*17	1015	0.070	0.280
1000		8*16		870	0.085	0.350	8*20 10*20	1050 1215	0.068 0.060	0.270 0.240
1200		10*17		1215	0.062	0.260	10*20	1410	0.045	0.180
1500		10*20		1410	0.045	0.190	10*25	1610	0.043	0.170
1650		10*25		1450	0.043	0.180	13*21	1650	0.042	0.160
2200		10*25		1650	0.042	0.170	10*30 13*21	1920 1910	0.030 0.035	0.120 0.140
3300		10*30 13*25		1800 1900	0.038 0.034	0.150 0.120	13*25	2230	0.026	0.089
4700		13*30		2450	0.023	0.078	13*35	2890	0.020	0.065
5600		16*25		2540	0.026	0.075	16*25	2940	0.020	0.060
6800		16*25		2750	0.020	0.060	16*32	3460	0.016	0.050
8200		16*32		3150	0.016	0.050	18*32	4080	0.014	0.040
10000		16*36		3460	0.014	0.044	18*36	4150	0.012	0.038
12000		18*32		4020	0.014	0.040	18*40	4290	0.011	0.032
15000		18*40		4210	0.013	0.038				

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:(20°C,-10°C 100KHz)

◆ WK series 105°C,長壽命,高紋波,低阻抗

• STANDARD RATING

Cap(μF)	Vdc	16v				25v			
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	
				20°C	-10°C			20°C	-10°C
47						5*11	200	0.570	2.300
56	5*11	220	0.570	2.300		5*11	240	0.570	2.300
100	6.3*11	310	0.210	0.820		6.3*11	340	0.210	0.870
120	6.3*11	340	0.210	0.870					
220	8*12	510	0.190	0.850		8*12	650	0.120	0.520
330	8*12	650	0.120	0.520		8*16	850	0.087	0.350
470	8*16 10*13	840 865	0.086 0.080	0.350 0.320		8*16 10*17	1050 1210	0.080 0.060	0.030 0.240
680	8*20 10*17	1065 1210	0.069 0.060	0.270 0.240		10*20	1410	0.045	0.180
820	10*20	1310	0.052	0.220		10*25	1660	0.410	0.170
1000	10*20	1410	0.045	0.180		10*30 13*21	1920 1910	0.032 0.034	0.120 0.132
1200	10*25	1650	0.043	0.170		13*21	2120	0.043	0.110
1500	13*21	1910	0.035	0.120		13*25	2240	0.026	0.089
2200	13*25	2240	0.026	0.089		13*25	2890	0.020	0.065
3300	13*25	2890	0.020	0.066		16*32	3460	0.016	0.050
4700	16*32	3450	0.016	0.050		18*36	4230	0.013	0.038
5600	18*32	4180	0.015	0.040		18*36	4290	0.011	0.032
6800	18*36	4080	0.012	0.038					
8200	18*36	4230	0.014	0.038					
10000	18*40	4290	0.011	0.032					

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:(20°C,-10°C 100KHz)

Chip Type SMD	Miniature Type	General Purpose	High Frequency Low Impedance	High Voltage High Reliability	Non-polar Type	Large Size Snap-in	Large Size Screw	X Metallized Polypropylene Fine Capacitors
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● STANDARD RATING

Cap(μ F)	Vdc Item	35v				50v			
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	
				20°C	-10°C			20°C	-10°C
22						5*11	180	0.700	2.800
33	5*11	220	0.560	2.300	6.3*11	200	0.600	2.500	
47	6.3*11	280	0.350	1.400	6.3*11	220	0.380	1.500	
56	6.3*11	340	0.210	0.860	6.3*11	300	0.300	1.200	
100	8*12	510	0.150	0.560	8*12	560	0.160	0.670	
150	8*12	650	0.130	0.520	10*13	770	0.120	0.480	
220	8*16	850	0.086	0.350	10*17	1050	0.083	0.340	
330	10*17	1210	0.060	0.240	10*25	1450	0.053	0.220	
470	10*20	1410	0.045	0.180	13*21	1670	0.044	0.150	
560	10*25	1650	0.041	0.160	13*25	1950	0.033	0.120	
680	13*21	1910	0.033	0.132	13*30	2320	0.030	0.110	
820	13*25	2100	0.028	0.088	16*25	2520	0.027	0.100	
1000	13*25	2230	0.028	0.088	16*25	2550	0.025	0.075	
1200	13*30	2660	0.023	0.078	16*32	3020	0.021	0.066	
1500	13*36	2880	0.020	0.065	16*36	3150	0.018	0.056	
2200	16*32 18*25	3500 3140	0.016 0.019	0.050 0.049	18*36	3690	0.017	0.046	
3300	18*36	4230	0.014	0.038					

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:(20°C,-10°C 100KHz)

◆ WK series 105°C,長壽命,高紋波,低阻抗

• STANDARD RATING

Cap(μF)	Vdc	63v				100v			
		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)		Case size D*L(mm)	Ripple Current (mA/ms)	Impedance (Ω)	
				20°C	-10°C			20°C	-10°C
6.8						5*11	56	2.200	9.200
10	5*11	56	2.200	9.200	6.3*11	120	1.200	5.000	
22	6.3*11	82	2.000	8.000	8*12	180	0.650	2.700	
33	6.3*11	120	1.200	5.000	8*14	240	0.520	2.100	
47	8*12	190	0.680	3.100	10*13	290	0.430	1.800	
56	8*12	235	0.620	2.800	10*17	330	0.320	1.600	
68	8*14	270	0.580	2.400	10*17	358	0.300	1.500	
82	8*16	310	0.450	2.100	10*20	470	0.210	0.940	
100	10*17	320	0.350	1.800	10*25	536	0.200	0.840	
150	10*20	420	0.250	1.000	13*21	790	0.140	0.660	
220	10*25	531	0.200	0.840	13*30	905	0.100	0.420	
330	13*25	790	0.120	0.450	16*32	1250	0.080	0.300	
470	13*30	910	0.100	0.420	16*36	1640	0.056	0.210	
560	16*25	1190	0.073	0.270	18*32	1860	0.040	0.150	
680	16*32	1250	0.070	0.300	18*36	1970	0.040	0.150	
820	16*32	1490	0.053	0.200	18*40	2340	0.036	0.130	
1000	16*36 18*32	1640 1640	0.045 0.045	0.170 0.170					
1200	18*36	1790	0.040	0.150					
1500	18*40	2340	0.035	0.130					

Maximum Ripple Current:(105°C 100KHz)

Maximum Impedance:(20°C,-10°C 100KHz)