

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



LQ

Low Imp., High Ripple Current Series



Low Impedance Miniaturized Solvent Proof

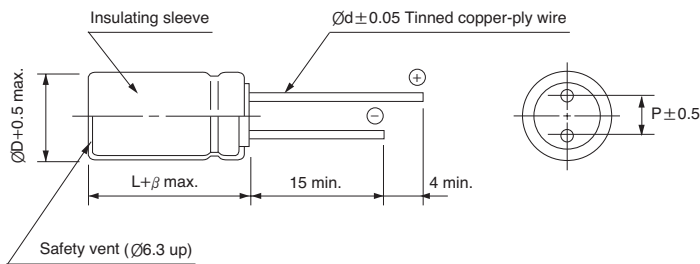


- For LED Lighting
- High reliability withstanding 10000 hours load life at 105°C
(6000 ~ 9000 hours for smaller case sizes as specified below)
- Complied to the RoHS directive, Halogen-Free

Item	Characteristics									
Operating temperature range	-40 ~ +105°C									
Leakage current max.	I = 0.01CV or 3μA whichever is greater (after 2 minutes)									
Capacitance tolerance	±20% at 120Hz, 20°C									
Dissipation factor max. (at 120Hz, 20 C)	Capacitance > 1000μF : tanδ increases by 0.02 for each 1000μF from below value.									
	WV	6.3	10	16	25	35	50	63	80	100
	tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.08
Low temperature characteristics (Impedance ratio at 120Hz)	Z-25°C / Z+20°C					2				
	Z-40°C / Z+20°C					3				
Load life	After an application of DC bias voltage plus the rated AC ripple current for 10000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.									
	Rated voltage (Vdc)		6.3 ~ 10				16 ~ 100			
	Capacitance change		Within ±30% of initial value				Within ±25% of initial value			
	tanδ		Less than 200% of specified value							
	Leakage current		Less than specified value							
	ØD		Life time (hrs)							
			6.3Vdc		10~50Vdc			63~100Vdc		
			6000		7000			6000		
			Ø8 × 11.5L		8000		9000		8000	
			Ø8 × 15L ~ 20L		9000		10000		9000	
			Ø10 × 12.5L		9000					
			Ø10 × 16L ~ 25L Ø12.5 ~		10000					
Shelf life (at 105 C)	After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20°C by the KS C 6305 clause 5.4.									

DRAWING

Unit : mm



ØD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
β	1.5			2.0			

FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	50kHz	100kHz≤
~ 33	0.42	0.70	0.90	0.95	1.00
47 ~ 270	0.50	0.73	0.92	0.96	1.00
330 ~ 680	0.55	0.77	0.94	0.97	1.00
820 ~ 1800	0.60	0.80	0.96	0.98	1.00
2200 ~	0.70	0.85	0.98	0.99	1.00

MINIATURE TYPES

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

LQ series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item μF	6.3			10			16			25			35		
	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz
47													5×11	0.400	450
68										5×11	0.400	450			
100										5×11	0.400	450	6.3×11	0.170	700
120							5×11	0.400	450						
150				5×11	0.400	450				6.3×11	0.170	700			
180													8×11.5	0.075	1200
220	5×11	0.400	345										8×15	0.059	1600
270							6.3×11	0.170	700				10×12.5	0.053	1700
330				5×11	0.170	700				8×11.5	0.075	1200	8×20	0.041	1960
390										8×15	0.059	1600	10×16	0.038	2000
470	6.3×11	0.170	540				8×11.5	0.075	1200	10×12.5	0.053	1700	10×16	0.038	2100
560				8×11.5	0.075	1200	8×15	0.059	1600	8×20	0.041	1960	10×20	0.028	2500
680				8×15	0.059	1600	10×12.5	0.053	1700	10×16	0.036	2000	10×25	0.024	2900
820	8×11.5	0.075	945	10×12.5	0.053	1700	8×20	0.041	1960				12.5×20	0.025	2600
1000	8×15	0.059	1250	10×16	0.041	1960	10×16	0.036	2000	10×20	0.027	2500	12.5×20	0.025	2800
1200	10×12.5	0.053	1500	10×16	0.036	2000				10×25	0.023	2900	12.5×25	0.019	3200
1500	8×20	0.041	1500				10×20	0.027	2500	12.5×20	0.024	2600	12.5×30	0.018	3660
1800	10×16	0.036	1760	10×20	0.027	2500	10×25	0.023	2900	12.5×25	0.018	3200	16×20	0.021	3330
2200				10×25	0.023	2900	12.5×20	0.024	2600	12.5×30	0.017	3660	12.5×34.5	0.016	4120
2700	10×20	0.027	1960	10×20	0.024	2600	12.5×25	0.018	3200	16×20	0.020	3330	16×25	0.017	3810
3300	10×25	0.023	2250	12.5×25	0.018	3200	12.5×30	0.017	3660	12.5×34.5	0.015	4120			
3900	12.5×20	0.024	2480				16×20	0.020	3300	16×25	0.016	3810			
4700	12.5×25	0.018	2900	12.5×20	0.018	3660	12.5×34.5	0.015	4120						
5600	12.5×30	0.017	3450	16×25	0.016	3300	16×25	0.016	3810						
6800	12.5×34.5	0.015	3570	16×25	0.021	4120									
8200	16×20	0.020	3250	16×25	0.017	3810									
	16×25	0.016	3630												

WV Item μF	50			63			80			100		
	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz	ØD×L (mm)	IMP. (Ω)max. 20 C 100kHz	Ripple current (mA rms) 105 C 100kHz
8.2										5×11	1.200	220
12							5×11	1.200	220			
18				5×11	0.710	240				6.3×11	0.460	370
27	5×11	0.480	310				6.3×11	0.460	370			
33										8×11.5	0.450	620
47	6.3×11	0.380	400	6.3×11	0.280	420	8×11.5	0.290	620	8×15	0.350	780
56	6.3×11	0.220	500				8×15	0.200	780	10×12.5	0.250	780
68							10×12.5	0.170	780	8×20	0.250	1040
82				8×11.5	0.180	720	8×20	0.160	1040	10×16	0.105	1040
100	8×11.5	0.120	950	8×15	0.130	990	10×16	0.110	1040	10×16	0.105	1140
120	8×15	0.082	1230	10×12.5	0.110	990				10×20	0.080	1430
150	10×12.5	0.073	1280	8×20	0.096	1200	10×16	0.110	1040	12.5×16	0.105	1430
180	8×20	0.058	1580	10×16	0.076	1200	10×25	0.069	1620	10×25	0.066	1620
220	10×16	0.050	1650				12.5×20	0.062	1750	12.5×25	0.045	2210
270				10×20	0.056	1570	12.5×25	0.047	2210	12.5×30	0.040	2400
330	10×20	0.036	2060	10×25	0.046	1990	12.5×30	0.042	2400	16×20	0.046	1950
390	10×25	0.030	2240	12.5×20	0.041	1990	16×20	0.048	1950	12.5×34.5	0.034	2600
470	12.5×20	0.030	2300	12.5×25	0.031	2460	12.5×34.5	0.036	2600	12.5×40	0.030	2860
560				12.5×30	0.028	2760	16×25	0.032	2860	16×25	0.036	2430
680	12.5×25	0.024	2800	12.5×34.5	0.024	3040	18×20	0.045	2270	18×20	0.045	2270
820	12.5×30	0.022	3370	16×25	0.025	2890	16×31.5	0.032	2640	16×31.5	0.028	2860
1000	16×20	0.025	3070				16×35.5	0.029	2860	18×31.5	0.029	2860
1200	12.5×34.5	0.020	3810	16×31.5	0.023	2950	18×40	0.027	3510	16×40	0.026	3510
2200	16×25	0.021	3510				18×40	0.026	3860	18×35.5	0.026	3510