

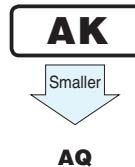
# ALUMINUM ELECTROLYTIC CAPACITORS



Snap-in Terminal Type, 105°C Permissible Abnormal Voltage

nichicon

- Withstanding 2000 hours application of rated ripple current at 105°C.
- Extended voltage range at 200V, 400V and 420V.
- Improved safety features for abnormally excessive voltage.
- Ideally suited for the equipment used at voltage fluctuating area.
- Compliant the RoHS directive (2011/65/EU).

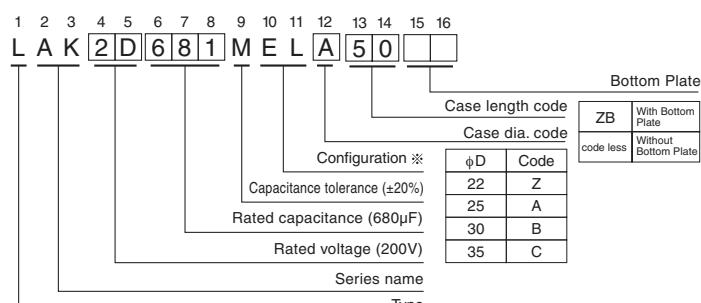


## ■ Specifications

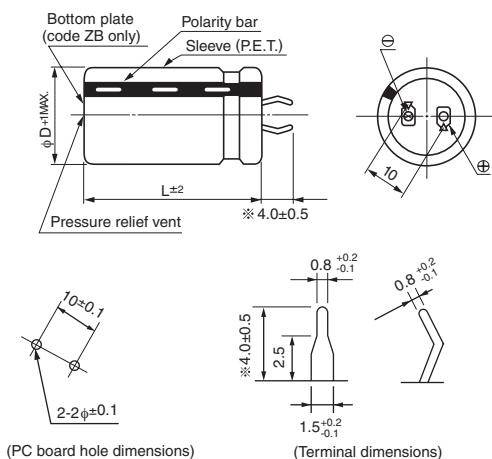
Item	Performance Characteristics																																			
Category Temperature Range	-25 to +105°C																																			
Rated Voltage Range	200 • 400 • 420V																																			
Rated Capacitance Range	33 to 1200μF																																			
Capacitance Tolerance	±20% at 120Hz, 20°C																																			
Leakage Current	$I \leq 3/\sqrt{CV}$ (μA) (After 5 minutes' application of rated voltage) [C : Rated Capacitance (μF) V : Voltage (V)]																																			
Tangent of loss angle (tan δ)	0.20MAX. 120Hz at 20°C																																			
Stability at Low Temperature	Rated voltage(V)	200	400 • 420	Measurement frequency : 120Hz																																
	Impedance ratio (MAX)   Z - 25°C/Z+20°C	8	8																																	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours at 105°C, the peak voltage shall not exceed the rated voltage.																																			
	<table border="1"> <tr> <td>Capacitance change</td><td>Within ±20% of the initial capacitance value</td></tr> <tr> <td>tan δ</td><td>200% or less than the initial specified value</td></tr> <tr> <td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr> </table>				Capacitance change	Within ±20% of the initial capacitance value	tan δ	200% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value																										
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Leakage current	Less than or equal to the initial specified value																																			
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the requirements listed at right.																																			
	<table border="1"> <tr> <td>Capacitance change</td><td>Within ±15% of the initial capacitance value</td></tr> <tr> <td>tan δ</td><td>150% or less than the initial specified value</td></tr> <tr> <td>Leakage current</td><td>Less than or equal to the initial specified value</td></tr> </table>				Capacitance change	Within ±15% of the initial capacitance value	tan δ	150% or less than the initial specified value	Leakage current	Less than or equal to the initial specified value																										
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Safety Performance	<p>The pressure relief vent will operate in normal conditions, with no dangerous conditions such as flames, ignitions or dispersion of pieces of the capacitor and/or case.</p> <table border="1"> <tr> <th>rating</th><th colspan="3">test conditions</th></tr> <tr> <th>Voltage (V)</th><th>Capacitance (μF)</th><th>Limited DC current</th><th>Test voltage</th></tr> <tr> <td rowspan="3">200</td><td>C &lt; 330</td><td>4 A</td><td rowspan="3">300VDC and 375VDC</td></tr> <tr><td>330 ≤ C &lt; 470</td><td>5 A</td></tr> <tr><td>470 ≤ C</td><td>7 A</td></tr> <tr> <td rowspan="3">400</td><td>C &lt; 100</td><td>2 A</td><td rowspan="3">500VDC and 600VDC</td></tr> <tr><td>100 ≤ C &lt; 220</td><td>4 A</td></tr> <tr><td>220 ≤ C</td><td>7 A</td></tr> <tr> <td rowspan="3">420</td><td>C &lt; 100</td><td>2 A</td><td rowspan="3">520VDC and 630VDC</td></tr> <tr><td>100 ≤ C &lt; 220</td><td>4 A</td></tr> <tr><td>220 ≤ C</td><td>7 A</td></tr> </table>				rating	test conditions			Voltage (V)	Capacitance (μF)	Limited DC current	Test voltage	200	C < 330	4 A	300VDC and 375VDC	330 ≤ C < 470	5 A	470 ≤ C	7 A	400	C < 100	2 A	500VDC and 600VDC	100 ≤ C < 220	4 A	220 ≤ C	7 A	420	C < 100	2 A	520VDC and 630VDC	100 ≤ C < 220	4 A	220 ≤ C	7 A
rating	test conditions																																			
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200	C < 330	4 A	300VDC and 375VDC																																	
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400	C < 100	2 A	500VDC and 600VDC																																	
	100 ≤ C < 220	4 A																																		
	220 ≤ C	7 A																																		
420	C < 100	2 A	520VDC and 630VDC																																	
	100 ≤ C < 220	4 A																																		
	220 ≤ C	7 A																																		
Marking	Printed with white color letter on black sleeve																																			

## ■ Drawing

Type numbering system (Example : 200V 680μF)



\* Please contact to us if other configurations are required.



Minimum order quantity : 50pcs.

● Dimension table in next page.

CAT.8100D

# ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

**AK** series  
Dimensions

200V (2D)				
Cap. (μF)	Size φD × L(mm)	Ripple (mA)	Leakage Current (mA)	Code
47	22 × 20	350	0.29	LAK2D470MELZ20
100	22 × 20	500	0.42	LAK2D101MELZ20
150	25 × 20	650	0.51	LAK2D151MELA20
180	22 × 25	700	0.56	LAK2D181MELZ25
	30 × 20	700	0.56	LAK2D181MELB20
220	22 × 25	740	0.62	LAK2D221MELZ25
270	22 × 30	900	0.69	LAK2D271MELZ30
	25 × 25	850	0.69	LAK2D271MELA25
	35 × 20	1100	0.69	LAK2D271MELC20
330	22 × 30	1050	0.77	LAK2D331MELZ30
	25 × 30	1050	0.77	LAK2D331MELA30
	30 × 25	1050	0.77	LAK2D331MELB25
390	22 × 35	1200	0.83	LAK2D391MELZ35
	25 × 30	1200	0.83	LAK2D391MELA30
	30 × 25	1200	0.83	LAK2D391MELB25
470	22 × 40	1300	0.91	LAK2D471MELZ40
	25 × 35	1300	0.91	LAK2D471MELA35
	30 × 25	1350	0.91	LAK2D471MELB25
560	22 × 45	1500	1.00	LAK2D561MELZ45
	25 × 40	1500	1.00	LAK2D561MELA40
	30 × 35	1550	1.00	LAK2D561MELB35
	35 × 25	1550	1.00	LAK2D561MELC25
680	25 × 50	1700	1.10	LAK2D681MELA50
	30 × 40	1700	1.10	LAK2D681MELB40
	35 × 30	1700	1.10	LAK2D681MELC30
820	30 × 45	1990	1.21	LAK2D821MELB45
	35 × 35	1990	1.21	LAK2D821MELC35
1000	30 × 50	2100	1.34	LAK2D102MELB50
	35 × 40	2100	1.34	LAK2D102MELC40
1200	35 × 50	2300	1.46	LAK2D122MELC50

420V (W6)				
Cap. (μF)	Size φD × L(mm)	Ripple (mA)	Leakage Current (mA)	Code
33	22 × 25	250	0.35	LAKW6330MELZ25
47	22 × 25	350	0.42	LAKW6470MELZ25
56	22 × 25	380	0.46	LAKW6560MELZ25
68	22 × 30	450	0.50	LAKW6680MELZ30
	25 × 25	450	0.50	LAKW6680MELA25
82	22 × 35	640	0.55	LAKW6820MELZ35
	25 × 30	640	0.55	LAKW6820MELA30
100	22 × 40	690	0.61	LAKW6101MELZ40
	25 × 30	690	0.61	LAKW6101MELA30
	30 × 25	690	0.61	LAKW6101MELB25
120	22 × 45	750	0.67	LAKW6121MELZ45
	25 × 35	750	0.67	LAKW6121MELA35
	30 × 30	750	0.67	LAKW6121MELB30
	35 × 25	750	0.67	LAKW6121MELC25
150	25 × 40	820	0.75	LAKW6151MELA40
	30 × 30	820	0.75	LAKW6151MELB30
	35 × 25	820	0.75	LAKW6151MELC25
180	25 × 45	900	0.82	LAKW6181MELA45
	30 × 35	900	0.82	LAKW6181MELB35
	35 × 30	900	0.82	LAKW6181MELC30
220	30 × 40	1000	0.91	LAKW6221MELB40
	35 × 35	1000	0.91	LAKW6221MELC35
270	30 × 45	1100	1.01	LAKW6271MELB45
	35 × 40	1100	1.01	LAKW6271MELC40
330	35 × 45	1200	1.11	LAKW6331MELC45

Rated ripple current (mA rms) at 105°C 120Hz

400V (2G)				
Cap. (μF)	Size φD × L(mm)	Ripple (mA)	Leakage Current (mA)	Code
33	22 × 20	220	0.34	LAK2G330MELZ20
39	22 × 20	300	0.37	LAK2G390MELZ20
47	22 × 25	350	0.41	LAK2G470MELZ25
	25 × 20	350	0.41	LAK2G470MELA20
	30 × 20	400	0.41	LAK2G470MELB20
56	22 × 25	380	0.44	LAK2G560MELZ25
	25 × 20	380	0.44	LAK2G560MELA20
68	22 × 25	400	0.49	LAK2G680MELZ25
	25 × 25	450	0.49	LAK2G680MELA25
	30 × 20	500	0.49	LAK2G680MELB20
82	22 × 30	500	0.54	LAK2G820MELZ30
	25 × 25	500	0.54	LAK2G820MELA25
	30 × 20	500	0.54	LAK2G820MELB20
100	22 × 35	550	0.60	LAK2G101MELZ35
	25 × 30	530	0.60	LAK2G101MELA30
	30 × 25	530	0.60	LAK2G101MELB25
	35 × 20	550	0.60	LAK2G101MELC20
120	22 × 40	600	0.65	LAK2G121MELZ40
	25 × 30	600	0.65	LAK2G121MELA30
	30 × 25	600	0.65	LAK2G121MELB25
150	22 × 45	700	0.73	LAK2G151MELZ45
	25 × 35	700	0.73	LAK2G151MELA35
	30 × 30	700	0.73	LAK2G151MELB30
	35 × 25	700	0.73	LAK2G151MELC25
180	22 × 50	800	0.80	LAK2G181MELZ50
	25 × 40	800	0.80	LAK2G181MELA40
	30 × 30	800	0.80	LAK2G181MELB30
	35 × 25	800	0.80	LAK2G181MELC25
220	25 × 45	900	0.88	LAK2G221MELA45
	30 × 35	900	0.88	LAK2G221MELB35
	35 × 30	900	0.88	LAK2G221MELC30
270	30 × 40	980	0.98	LAK2G271MELB40
	35 × 35	960	0.98	LAK2G271MELC35
330	30 × 50	1210	1.08	LAK2G331MELB50
	35 × 40	1210	1.08	LAK2G331MELC40
390	35 × 45	1320	1.18	LAK2G391MELC45
470	35 × 50	1450	1.30	LAK2G471MELC50

## ● Frequency coefficient of rated ripple current

Frequency (Hz)	50	60	120	1k	10k or more
Coefficient	200V	0.85	0.88	1.00	1.15
400~420V	0.88	0.90	1.00	1.10	1.15

CAT.8100D



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

#### Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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Факс: 8 (812) 320-02-42

Электронная почта: [org@eplast1.ru](mailto:org@eplast1.ru)

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