

ALUMINUM ELECTROLYTIC CAPACITORS

AK series

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

- 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 |
| | 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. | | | Measurement frequency : 120Hz |
| | Capacitance change | Within ±20% of the initial capacitance value | | |
| | tan δ | 200% or less than 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. | | | Leakage current |
| | Capacitance change | Within ±15% of the initial capacitance value | | |
| | tan δ | 150% or less than the initial specified value | | |
| Safety Performance | 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. | | | |
| | 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 | | |
| 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.

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 (mArms) 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 |
| | 30 × 50 | 1210 | 1.08 | LAK2G331MELB50 |
| 330 | 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

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



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, помощь 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 помощь 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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