ALUMINUM ELECTROLYTIC CAPACITORS

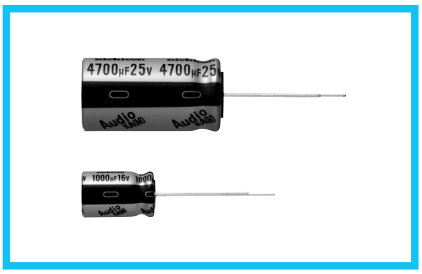
nichicon

KA For High Grade Audio Equipment, Wide Temperature Range. series

For Audio Use | Anti-Solvent Feature

KA → High Grade → **KT**

- 105°C high quality capacitors for audio equipment.
- Selected materials to create superior acoustic sound.
- Compliant to the RoHS directive (2011/65/EU).



■Specifications

Item	Performance Characteristics
Category Temperature Range	– 55 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	22 to 22000 μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater. After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C

Rated voltage (V)	6.3	10	16	25	35	50
tan δ (MAX.)	0.30	0.26	0.22	0.18	0.16	0.14

For capacitors with more than 1000μF, add 0.02 for every increase of 1000μF.

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50
tan δ (MAX.)	Z–25°C / Z+20°C	5	4	3	2	2	2
	Z–40°C / Z+20°C	10	8	6	4	3	3

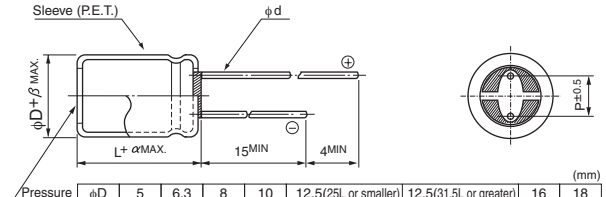
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C.

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

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 specified values for the endurance characteristics listed above.

Marking — Printed with black color letter on pearl blue sleeve.

■Radial Lead Type



(mm)

φD	5	6.3	8	10	12.5(25L or smaller)	12.5(31.5L or greater)	16	18
P	2.0	2.5	3.5	5.0	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8
β	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
α	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Type numbering system (Example : 16V 1000μF)

1	2	3	4	5	6	7	8	9	10	11
U	K	A	1	C	1	0	2	M	P	D

Configuration
Capacitance tolerance (±20%)
Rated capacitance (1000μF)
Rated voltage (16V)
Series name
Type

φ D	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 ·10	PD
12.5 to 18	HD

• Please refer to page 20 about the end seal configuration.

■Dimensions

Cap (μF) \ V	6.3		10		16		25		35		50	
Code	0J		1A		1C		1E		1V		1H	
22	220	5×11	45	5×11	45	5×11	54	5×11	58	5×11	61	5×11	68
33	330	5×11	55	5×11	58	5×11	65	5×11	68	5×11	75	5×11	90
47	470	5×11	65	5×11	68	5×11	79	5×11	83	5×11	93	6.3×11	115
100	101	5×11	95	5×11	105	5×11	115	6.3×11	140	6.3×11	150	8×11.5	190
220	221	6.3×11	160	6.3×11	175	6.3×11	190	8×11.5	240	8×11.5	260	10×12.5	300
330	331	6.3×11	195	8×11.5	240	8×11.5	265	8×11.5	290	10×12.5	350	10×16	410
470	471	8×11.5	270	8×11.5	280	8×11.5	315	10×12.5	380	10×16	460	12.5×20	530
1000	102	10×12.5	420	10×16	500	10×16	560	10×20	680	12.5×25	860	12.5×31.5	1040
2200	222	10×20	710	12.5×20	810	12.5×20	920	12.5×31.5	1200	12.5×40	1260	16×35.5	1470
3300	332	12.5×20	910	12.5×25	1050	12.5×31.5	1270	12.5×35.5	1400	16×35.5	1610	18×35.5	1770
4700	472	12.5×25	1120	12.5×35.5	1300	12.5×35.5	1480	16×31.5	1710	18×35.5	1910		
6800	682	12.5×35.5	1360	12.5×40	1570	16×31.5	1780	18×35.5	2040				
10000	103	12.5×40	1650	16×35.5	1890	18×35.5	2060						
15000	153	16×35.5	2010	18×40	2400							Case size φD × L(mm)	Rated ripple
22000	223	18×40	2350										

Rated ripple current (mArms) at 105°C 120Hz

● Frequency coefficient of rated ripple current

Cap.(μF) \ Frequency	50Hz	120Hz	300Hz	1kHz	10kHz or more
22 to 47	0.75	1.00	1.35	1.57	2.00
100 to 470	0.80	1.00	1.23	1.34	1.50
1000 to 22000	0.85	1.00	1.10	1.13	1.15

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.