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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

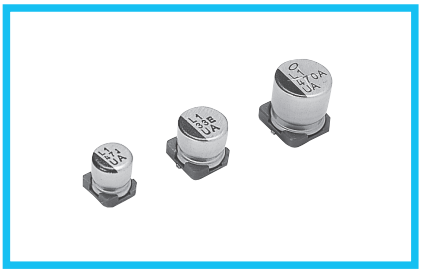
UUA

6mmL Chip Type, Long Life Assurance

For SMD | Long Life

- Chip type with load life of 3000 to 5000 hours at +105°C.
- Designed for surface mounting on high density PC board.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.

UUL Long Life → UUA



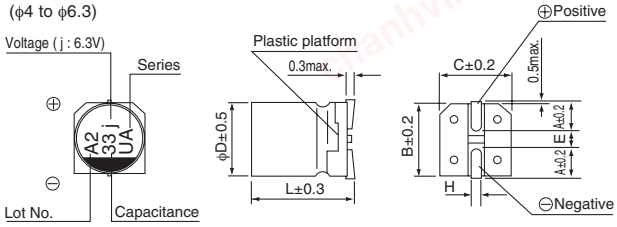
■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	1 to 1000μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current ※	After 2 minutes' application of rated voltage at 20°C, leakage current is not more than 0.01 CV 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.): 0.28 / 0.24 / 0.20 / 0.16 / 0.13 / 0.12
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 6.3 / 10 / 16 / 25 / 35 / 50 Impedance ratio ZT / Z20 (max.) Z(−25°C) / Z(+20°C): 4 / 3 / 2 / 2 / 2 / 2 Z(−55°C) / Z(+20°C): 10 / 7 / 5 / 3 / 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 5000 hours (3000 hours for φD = 4, 5 and 6.3) at 105°C. Capacitance change: Within ±30% of the initial capacitance value tan δ: 300% 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.
Resistance to soldering heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C. Capacitance change: Within ±10% of the initial capacitance value tan δ: Less than or equal to the initial specified value Leakage current: Less than or equal to the initial specified value
Marking	Black print on the case top.

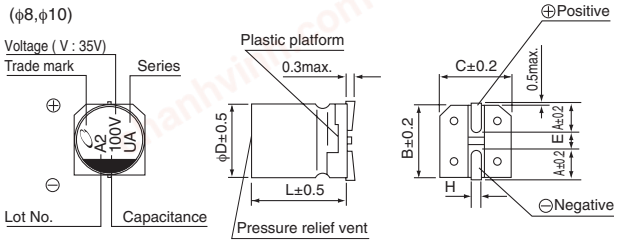
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Chip Type

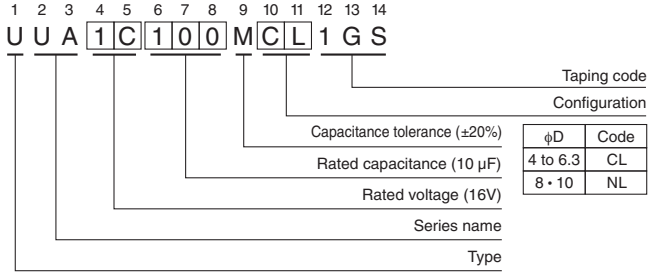
(φ4 to φ6.3)



(φ8,φ10)



Type numbering system (Example : 16V 10μF)



φD	Code
4 to 6.3	CL
8 • 10	NL

(mm)

φD × L	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10	10 × 10
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.8	5.8	5.8	7.7	10	10
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Voltage

V	6.3	10	16	25	35	50
Code	j	A	C	E	V	H

● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.70	1.00	1.17	1.36	1.50

● Dimension table in next page.

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■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
6.3 (0J)	22	4×5.8	0.28	3	22	UUA0J220MCL1GS
	33	5×5.8	0.28	3	35	UUA0J330MCL1GS
	47	5×5.8	0.28	3	38	UUA0J470MCL1GS
	100	6.3×5.8	0.28	6.3	69	UUA0J101MCL1GS
	220	6.3×7.7	0.28	13.86	120	UUA0J221MCL1GS
	330	8×10	0.28	20.79	290	UUA0J331MNL1GS
	470	10×10	0.28	29.61	320	UUA0J471MNL1GS
	1000	10×10	0.28	63	410	UUA0J102MNL1GS
10 (1A)	22	5×5.8	0.24	3	30	UUA1A220MCL1GS
	33	5×5.8	0.24	3.3	35	UUA1A330MCL1GS
	47	6.3×5.8	0.24	4.7	50	UUA1A470MCL1GS
	100	6.3×7.7	0.24	10	81	UUA1A101MCL1GS
	220	8×10	0.24	22	141	UUA1A221MNL1GS
	330	10×10	0.24	33	290	UUA1A331MNL1GS
	470	10×10	0.24	47	320	UUA1A471MNL1GS
16 (1C)	10	4×5.8	0.20	3	18	UUA1C100MCL1GS
	22	5×5.8	0.20	3.52	30	UUA1C220MCL1GS
	33	6.3×5.8	0.20	5.28	48	UUA1C330MCL1GS
	47	6.3×5.8	0.20	7.52	50	UUA1C470MCL1GS
	100	6.3×7.7	0.20	16	81	UUA1C101MCL1GS
	220	10×10	0.20	35.2	216	UUA1C221MNL1GS
	330	10×10	0.20	52.8	290	UUA1C331MNL1GS
	470	10×10	0.20	75.2	320	UUA1C471MNL1GS
25 (1E)	10	5×5.8	0.16	3	27	UUA1E100MCL1GS
	22	6.3×5.8	0.16	5.5	44	UUA1E220MCL1GS
	33	6.3×5.8	0.16	8.25	50	UUA1E330MCL1GS
	47	6.3×7.7	0.16	11.75	63	UUA1E470MCL1GS
	100	8×10	0.16	25	116	UUA1E101MNL1GS
	220	10×10	0.16	55	320	UUA1E221MNL1GS
	330	10×10	0.16	82.5	450	UUA1E331MNL1GS
35 (1V)	4.7	4×5.8	0.13	3	16	UUA1V4R7MCL1GS
	10	5×5.8	0.13	3.5	27	UUA1V100MCL1GS
	22	6.3×5.8	0.13	7.7	44	UUA1V220MCL1GS
	33	6.3×7.7	0.13	11.55	57	UUA1V330MCL1GS
	47	8×10	0.13	16.45	92	UUA1V470MNL1GS
	100	10×10	0.13	35	151	UUA1V101MNL1GS
	220	10×10	0.13	77	375	UUA1V221MNL1GS
50 (1H)	1	4×5.8	0.12	3	8	UUA1H010MCL1GS
	2.2	4×5.8	0.12	3	12	UUA1H2R2MCL1GS
	3.3	4×5.8	0.12	3	17	UUA1H3R3MCL1GS
	4.7	5×5.8	0.12	3	22	UUA1H4R7MCL1GS
	10	6.3×5.8	0.12	5	32	UUA1H100MCL1GS
	22	6.3×7.7	0.12	11	58	UUA1H220MCL1GS
	33	8×10	0.12	16.5	140	UUA1H330MNL1GS
	47	8×10	0.12	23.5	170	UUA1H470MNL1GS
	100	10×10	0.12	50	310	UUA1H101MNL1GS

- For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.