ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

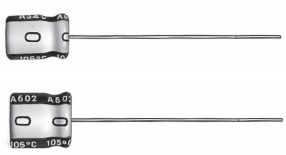
USV

7mmL, Long Life Assurance

Long Life

- Extended load life of 5000 hours at +105˚C, with 7mm height.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

UST → Long Life → USV



■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +105˚C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	1 to 220μF
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 0.01CV or 3(μA), whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20˚C

Rated voltage (V)	6.3	10	16	25	35	50
tan δ (MAX.)	0.24	0.21	0.18	0.15	0.13	0.12

Stability at Low Temperature — Measurement frequency : 120Hz

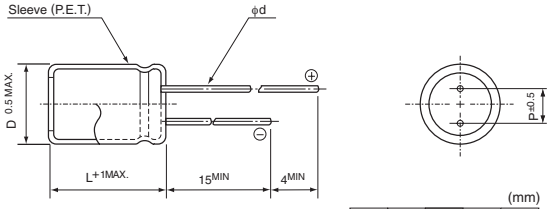
Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio (MAX.)	Z−25˚C / Z+20˚C	4	3	2	2	2	2
	Z−40˚C / Z+20˚C	8	6	4	3	3	3

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 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.
Marking	Printed with silver color letter on dark brown sleeve.

■Radial Lead Type



(mm)

φD	4	5	6.3	8
P	1.5	2.0	2.5	3.5
φd	0.45	0.45	0.45	0.5

Type numbering system (Example: 10V 33μF)

1	2	3	4	5	6	7	8	9	10	11
U	S	V	1	A	3	3	0	M	F	D

- Configuration※
- Capacitance tolerance (±20%)
- Rated capacitance (33μF)
- Rated voltage (10V)
- Series name
- Type

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
4 to 8	FD

●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.

USV

■ 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	4×7	0.24	3	34	USV0J220MFD
	33	5×7	0.24	3	42	USV0J330MFD
	47	5×7	0.24	3	50	USV0J470MFD
	100	6.3×7	0.24	6.3	77	USV0J101MFD
	220	8×7	0.24	13.86	130	USV0J221MFD
10 (1A)	22	5×7	0.21	3	38	USV1A220MFD
	33	5×7	0.21	3.3	47	USV1A330MFD
	47	6.3×7	0.21	4.7	59	USV1A470MFD
	100	8×7	0.21	10	96	USV1A101MFD
16 (1C)	10	4×7	0.18	3	29	USV1C100MFD
	22	5×7	0.18	3.52	44	USV1C220MFD
	33	6.3×7	0.18	5.28	57	USV1C330MFD
	47	6.3×7	0.18	7.52	68	USV1C470MFD
	100	8×7	0.18	16	107	USV1C101MFD
25 (1E)	10	5×7	0.15	3	33	USV1E100MFD
	22	6.3×7	0.15	5.5	51	USV1E220MFD
	33	6.3×7	0.15	8.25	63	USV1E330MFD
	47	8×7	0.15	11.75	78	USV1E470MFD
35 (1V)	4.7	4×7	0.13	3	24	USV1V4R7MFD
	10	5×7	0.13	3.5	36	USV1V100MFD
	22	6.3×7	0.13	7.7	57	USV1V220MFD
	33	8×7	0.13	11.55	72	USV1V330MFD
50 (1H)	1	4×7	0.12	3	10	USV1H010MFD
	2.2	4×7	0.12	3	19	USV1H2R2MFD
	3.3	4×7	0.12	3	24	USV1H3R3MFD
	4.7	5×7	0.12	3	29	USV1H4R7MFD
	10	6.3×7	0.12	5	44	USV1H100MFD
	22	8×7	0.12	11	65	USV1H220MFD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.

Please refer to page 18, 19 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.