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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCS

Miniature Sized, High Ripple Current, High Reliability

Smaller | Long Life | High Ripple Current

- High ripple current and Long Life product withstanding load life of 8000 to 10000 hours at +105°C.
- Suited for power supply and ballast application.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).

UCA
Smaller
UCS
Smaller
UCP UCY



Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +105°C
Rated Voltage Range	160 to 450V
Rated Capacitance Range	6.8 to 330μF
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 0.04CV+100 (μA)
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C

Rated voltage (V)	160	200	250	350	400	450
tan δ (MAX.)	0.20	0.20	0.20	0.24	0.24	0.24

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		160	200	250	350	400	450
Impedance ratio (MAX.)	Z−25°C / Z+20°C	3	3	3	5	5	6
	Z−40°C / Z+20°C	6	6	6	6	6	–

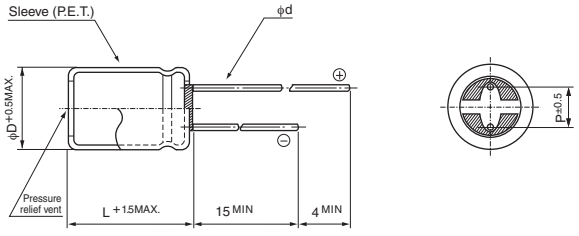
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 10000 hours (8000 hours for φD × L=10 × 16, 10 × 20) at 105°C, the peak voltage shall not exceed the rated voltage.

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

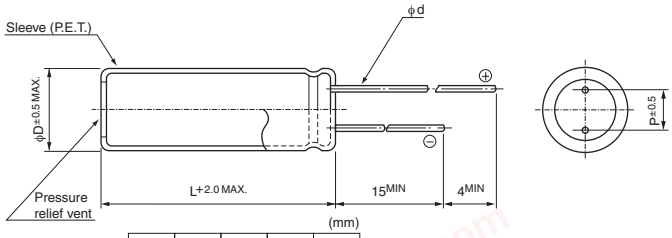
Shelf Life — After storing the capacitors under no load at 105˚C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.

Marking — Printed with white color letter on dark brown sleeve.

Radial Lead Type



Pencil - shaped Type



(mm)

φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8

Type numbering system (Example : 250V 100μF)

1	2	3	4	5	6	7	8	9	10	11	12
U	C	S	2	E	1	0	1	M	H	D	

- 12: Size code ※2
- 10, 11: Configuration ※
- 9: Capacitance tolerance (±20%)
- 6, 7, 8: Rated capacitance (100μF)
- 4, 5: Rated voltage (250V)
- 3: Series name
- 1, 2: Type

※Configuration

Size code ※2	Blank, 6	9
φ D	Pb-free leadwire Pb-free PET sleeve	Pb-free leadwire Pb-free PET sleeve
10	PD	ND
12.5 to 18	HD	NY

• Frequency coefficient of rated ripple current

Frequency	50Hz	120Hz	1kHz	10kHz	100kHz or more
Coefficient	0.40	0.50	0.80	0.90	1.00

- Please refer to the Guidelines for Aluminum Electrolytic Capacitors for end seal configuration information.

● 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 1 minute)	Rated Ripple (mArms) (105℃/100kHz)	Part Number
160 (2C)	10	10×16	0.20	164	320	UCS2C100MPD
	22	10×20	0.20	240.8	500	UCS2C220MPD
	33	10×20	0.20	311.2	650	UCS2C330MPD
	47	10×20	0.20	400.8	750	UCS2C470MPD
	68	12.5×20	0.20	535.2	1180	UCS2C680MHD
	82	12.5×20	0.20	624.8	1275	UCS2C820MHD
	100	12.5×25	0.20	740	1420	UCS2C101MHD
	100	16×20	0.20	740	1420	UCS2C101MHD6
	150	16×20	0.20	1060	1890	UCS2C151MHD
	220	16×25	0.20	1508	2370	UCS2C221MHD
	330	18×31.5	0.20	2212	3130	UCS2C331MHD
200 (2D)	10	10×16	0.20	180	320	UCS2D100MPD
	22	10×20	0.20	276	500	UCS2D220MPD
	33	10×20	0.20	364	650	UCS2D330MPD
	47	12.5×20	0.20	476	980	UCS2D470MHD
	68	12.5×20	0.20	644	1300	UCS2D680MHD
	82	16×20	0.20	756	1380	UCS2D820MHD
	100	16×20	0.20	900	1420	UCS2D101MHD
	100	10×40	0.20	900	1260	UCS2D101MND9
	120	10×40	0.20	1060	1360	UCS2D121MND9
	150	16×25	0.20	1300	1890	UCS2D151MHD
	150	10×50	0.20	1300	1660	UCS2D151MND9
	220	18×25	0.20	1860	2365	UCS2D221MHD
	270	12.5×50	0.20	2260	2530	UCS2D271MNY9
	330	18×35.5	0.20	2740	3220	UCS2D331MHD
250 (2E)	10	10×20	0.20	200	350	UCS2E100MPD
	22	10×20	0.20	320	500	UCS2E220MPD
	33	12.5×20	0.20	430	800	UCS2E330MHD
	47	12.5×20	0.20	570	980	UCS2E470MHD
	68	16×20	0.20	780	1300	UCS2E680MHD
	82	16×20	0.20	920	1380	UCS2E820MHD
	82	10×40	0.20	920	1220	UCS2E820MND9
	100	16×25	0.20	1100	1530	UCS2E101MHD
	100	10×50	0.20	1100	1360	UCS2E101MND9
	150	18×25	0.20	1600	1940	UCS2E151MHD
	180	12.5×50	0.20	1900	2070	UCS2E181MNY9
	220	18×31.5	0.20	2300	3130	UCS2E221MHD
350 (2V)	6.8	10×16	0.24	195.2	280	UCS2V6R8MPD
	10	10×20	0.24	240	350	UCS2V100MPD
	22	12.5×20	0.24	408	650	UCS2V220MHD
	33	16×20	0.24	562	900	UCS2V330MHD
	47	16×20	0.24	758	1080	UCS2V470MHD
	68	16×25	0.24	1052	1400	UCS2V680MHD
	68	18×20	0.24	1052	1375	UCS2V680MHD6
	82	18×25	0.24	1248	1530	UCS2V820MHD
	100	18×25	0.24	1500	1575	UCS2V101MHD

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.

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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 1 minute)	Rated Ripple (mArms) (105℃/100kHz)	Part Number
400 (2G)	6.8	10×16	0.24	208.8	280	UCS2G6R8MPD
	10	10×20	0.24	260	350	UCS2G100MPD
	15	12.5×20	0.24	340	550	UCS2G150MHD
	22	12.5×20	0.24	452	760	UCS2G220MHD
	33	16×20	0.24	628	900	UCS2G330MHD
	39	10×40	0.24	724	800	UCS2G390MND9
	47	16×25	0.24	852	1180	UCS2G470MHD
	47	18×20	0.24	852	1180	UCS2G470MHD6
	56	10×50	0.24	996	1040	UCS2G560MND9
	68	18×25	0.24	1188	1470	UCS2G680MHD
	82	18×25	0.24	1412	1525	UCS2G820MHD
	82	12.5×50	0.24	1412	1400	UCS2G820MNY9
450 (2W)	6.8	10×20	0.24	222.4	280	UCS2W6R8MPD
	10	12.5×20	0.24	280	450	UCS2W100MHD
	15	12.5×25	0.24	370	600	UCS2W150MHD
	22	16×20	0.24	496	730	UCS2W220MHD
	27	10×40	0.24	586	580	UCS2W270MND9
	33	16×25	0.24	694	980	UCS2W330MHD
	33	18×20	0.24	694	980	UCS2W330MHD6
	33	10×40	0.24	694	720	UCS2W330MND9
	39	10×50	0.24	802	820	UCS2W390MND9
	47	18×25	0.24	946	1200	UCS2W470MHD
	68	18×31.5	0.24	1324	1575	UCS2W680MHD
	68	12.5×50	0.24	1324	1340	UCS2W680MNY9

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.

- For formed lead or taped product specifications and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.