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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

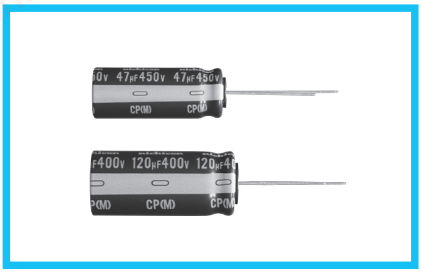
UCP

High Voltage, Miniature sized, Long Life Assurance

Smaller | Long Life | High Ripple Current

- High ripple current.
- Load life of 10000 hours at 105°C.
- Suited for ballast applications.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.

UCS
Smaller
UCP

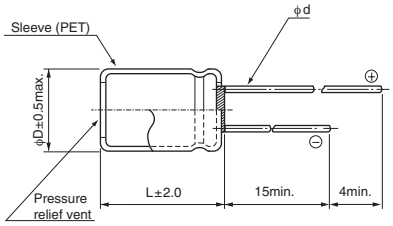


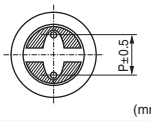
■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +105°C
Rated Voltage Range	400 to 450V
Rated Capacitance Range	27 to 220μF
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 I=0.04CV+100 (μA).
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C Rated voltage (V): 400 / 420 / 450 tan δ (max.): 0.24 / 0.24 / 0.24
Stability at Low Temperature	Measurement frequency : 120Hz Rated voltage (V): 400 / 420 / 450 Impedance ratio (max.) Z(−25°C) / Z(+20°C): 8 / 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 10000 hours 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.

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

■Radial Lead Type





(mm)

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

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

Type numbering system (Example : 400V 220μF)

1	2	3	4	5	6	7	8	9	10	11	12
U	C	P	2	G	2	2	1	M	H	D	

- 12: Size code
- 10, 11: Configuration ※
- 9: Capacitance tolerance (±20%)
- 6, 7, 8: Rated capacitance (220μF)
- 4, 5: Rated voltage (400V)
- 3: Series name
- 1, 2: Type

※Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
10	PD
12.5 to 18	HD

• Frequency coefficient of rated ripple current

Frequency	60Hz	120Hz	500Hz	1kHz	10kHz or more
Coefficient	0.80	1.00	1.25	1.40	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 1 minute)	Rated Ripple (mArms) (105℃/120Hz)	Part Number
400 (2G)	33	10×31.5	0.24	628	330	UCP2G330MPD
	56	12.5×31.5	0.24	996	470	UCP2G560MHD
	68	12.5×35.5	0.24	1188	540	UCP2G680MHD
	82	12.5×40	0.24	1412	620	UCP2G820MHD
	100	16×31.5	0.24	1700	710	UCP2G101MHD
	120	16×35.5	0.24	2020	800	UCP2G121MHD
	150	16×40	0.24	2500	920	UCP2G151MHD
	150	18×31.5	0.24	2500	890	UCP2G151MHD6
	180	18×40	0.24	2980	1060	UCP2G181MHD
	220	18×46	0.24	3620	1200	UCP2G221MHD
420 (W6)	33	10×31.5	0.24	654.4	320	UCPW6330MPD
	56	12.5×31.5	0.24	1040.8	460	UCPW6560MHD
	100	16×31.5	0.24	1780	690	UCPW6101MHD
	120	16×35.5	0.24	2116	780	UCPW6121MHD
	120	18×31.5	0.24	2116	800	UCPW6121MHD6
	150	18×35.5	0.24	2620	920	UCPW6151MHD
	180	18×40	0.24	3124	1040	UCPW6181MHD
450 (2W)	27	10×31.5	0.24	586	300	UCP2W270MPD
	47	12.5×31.5	0.24	946	430	UCP2W470MHD
	56	12.5×35.5	0.24	1108	490	UCP2W560MHD
	68	12.5×40	0.24	1324	560	UCP2W680MHD
	82	16×31.5	0.24	1576	640	UCP2W820MHD
	100	16×35.5	0.24	1900	730	UCP2W101MHD
	120	16×40	0.24	2260	820	UCP2W121MHD
	120	18×31.5	0.24	2260	800	UCP2W121MHD6
	150	18×40	0.24	2800	970	UCP2W151MHD
	180	18×46	0.24	3340	1090	UCP2W181MHD

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.