ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

ML

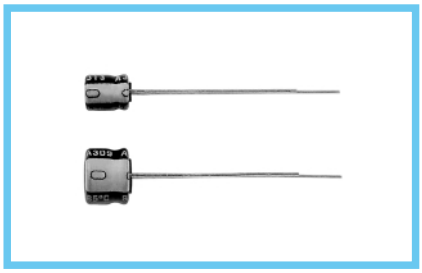
5mmL, Low Leakage Current series

Low Leakage Current | Anti-Solvent Feature

- Low leakage current series with 5mm height.
- Adapted to the RoHS directive (2002/95/EC).

Products which are scheduled to discontinue.
Not recommended for new designs

MA Low Leakage Current ML



■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +85°C
Rated Voltage Range	4 to 50V
Rated Capacitance Range	0.1 to 100μF
Rated Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.002CV or 0.4 (μA), whichever is greater.
tan δ	Measurement frequency : 120Hz, Temperature : 20°C

Rated voltage (V)	4	6.3	10	16	25	35	50
tan δ (MAX.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10

Stability at Low Temperature — Measurement frequency : 120Hz

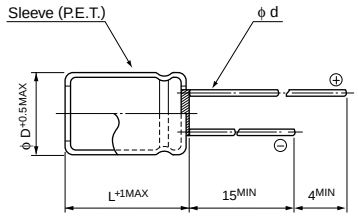
Rated voltage (V)		4	6.3	10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	7	4	3	2	2	2	2
	Z−40°C / Z+20°C	15	10	8	6	4	3	3

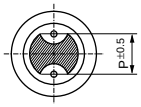
Endurance — After 1000 hours' application of rated voltage at 85°C, capacitors meet the characteristic requirements listed at right.

Capacitance change	Within ±20% of initial value
tan δ	200% or less of initial specified value
Leakage current	Initial specified value or less

Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.
Marking	Printed with white color letter on black sleeve.

■Radial Lead Type





(mm)

φ D	4	5	6.3
P	1.5	2.0	2.5
φ d	0.45	0.45	0.45

Type numbering system (Example : 10V 33μF)

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

- 11: Configuration ※
- 10: Capacitance tolerance (± 20%)
- 9: Rated capacitance (33μF)
- 8: Rated voltage (10V)
- 5: Serise name
- 1: Type

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
4 to 6.3	DD

■Dimensions

Cap.(μF) \ V	Code	4		6.3		10		16		25		35		50	
		0G		0J		1A		1C		1E		1V		1H	
0.1	0R1													4×5	1.0
0.22	R22													4×5	2.0
0.33	R33													4×5	2.8
0.47	R47													4×5	4.0
1	010													4×5	8.4
2.2	2R2													4×5	13
3.3	3R3													5×5	17
4.7	4R7									4×5	16	4×5	18	5×5	20
10	100							4×5	23	5×5	27	5×5	29	6.3×5	33
22	220			4×5	28	5×5	33	5×5	37	6.3×5	42	6.3×5	46		
33	330	5×5	28	5×5	37	5×5	41	6.3×5	49	6.3×5	52				
47	470	5×5	33	5×5	45	6.3×5	52	6.3×5	58					Case size φD×L (mm)	Rated ripple
100	101	6.3×5	56	6.3×5	70										

Rated Ripple (mArms) at 85°C 120Hz

●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

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Nichicon:

UML0J330MDD UML0J470MDD UML1A220MDD UML1E100MDD UML1E220MDD UML1E330MDD UML0J101MDD UML0J220MDD UML0G330MDD UML0G470MDD UML0J101MDA UML1C100MDD UML1C220MDD UML0G101MDD UML1A330MDD UML1A470MDD UML1E4R7MDD UML1H010MDA UML1H010MDD UML1H4R7MDD UML1HR22MDD UML1HR33MDD UML1C330MDD UML1C470MDD UML1H2R2MDD UML1H3R3MDD UML1H0R1MDD UML1H100MDD UML1V220MDD UML1V4R7MDD UML1HR47MDD UML1V100MDD