ALUMINUM ELECTROLYTIC CAPACITORS

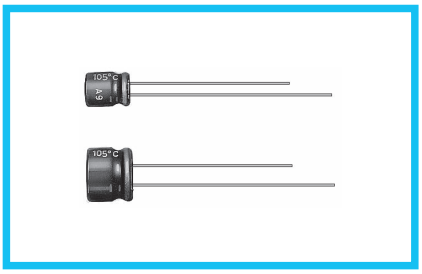
nichicon

UMF

5mmL, Low Impedance

Low Impedance Anti-Solvent Feature

- Low impedance over wide temperature range of −55 to +105°C, with 5mm height.
- Suited for DC-DC converters where smaller case size and lower impedance are required.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



UMF ← Low Impedance → UMT

■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C
Rated Voltage Range	6.3 to 35V
Rated Capacitance Range	1 to 100μF
Rated 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 at 20°C

Rated voltage (V)	6.3	10	16	25	35
tan δ (MAX.)	0.22	0.20	0.18	0.14	0.12

Stability at Low Temperature — Measurement frequency : 120Hz

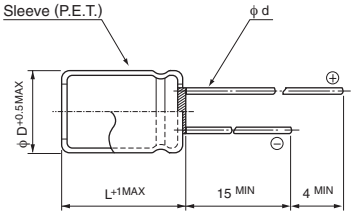
Rated voltage (V)		6.3	10	16	25	35
Impedance ratio (MAX.)	Z−25°C / Z+20°C	2	2	2	2	2
	Z−55°C /Z+20°C	4	4	3	3	3

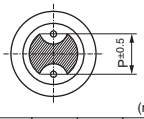
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 105°C.

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 storig 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





(mm)

φD	4	5	6.3
P	1.5	2.0	2.5
φd	0.45	0.45	0.45

Type numbering system (Example : 25V 10μF)

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

- 11: Configuration ※
- 9: Capacitance tolerance (±20%)
- 6 7 8: Rated capacitance (10μF)
- 4 5: Rated voltage (25V)
- 3: Series name
- 1 2: Type

※Configuration

φD	Pb-free leadwire Pb-free PET sleeve
4 to 6.3	DD

●Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
Coefficient	0.35	0.50	0.64	0.83	1.00

●Dimension table in next page.

UMF

■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	Impedance (Ω) MAX. (20℃/100kHz)	Rated Ripple (mArms) (105℃/100kHz)	Part Number
6.3 (0J)	22	4×5	0.22	3	5.0	50	UMF0J220MDD
	33	5×5	0.22	3	2.6	80	UMF0J330MDD
	47	5×5	0.22	3	2.6	80	UMF0J470MDD
	68	6.3×5	0.22	4.284	1.3	115	UMF0J680MDD
	100	6.3×5	0.22	6.3	1.3	115	UMF0J101MDD
10 (1A)	22	5×5	0.20	3	2.6	80	UMF1A220MDD
	33	5×5	0.20	3.3	2.6	80	UMF1A330MDD
	47	6.3×5	0.20	4.7	1.3	115	UMF1A470MDD
16 (1C)	10	4×5	0.18	3	5.0	50	UMF1C100MDD
	15	5×5	0.18	3	2.6	80	UMF1C150MDD
	22	5×5	0.18	3.52	2.6	80	UMF1C220MDD
	33	6.3×5	0.18	5.28	1.3	115	UMF1C330MDD
	47	6.3×5	0.18	7.52	1.3	115	UMF1C470MDD
25 (1E)	4.7	4×5	0.14	3	5.0	50	UMF1E4R7MDD
	6.8	4×5	0.14	3	5.0	50	UMF1E6R8MDD
	10	5×5	0.14	3	2.6	80	UMF1E100MDD
	15	6.3×5	0.14	3.75	1.3	115	UMF1E150MDD
	22	6.3×5	0.14	5.5	1.3	115	UMF1E220MDD
	33	6.3×5	0.14	8.25	1.3	115	UMF1E330MDD
35 (1V)	1	4×5	0.12	3	5.0	50	UMF1V010MDD
	1.5	4×5	0.12	3	5.0	50	UMF1V1R5MDD
	2.2	4×5	0.12	3	5.0	50	UMF1V2R2MDD
	3.3	4×5	0.12	3	5.0	50	UMF1V3R3MDD
	4.7	4×5	0.12	3	5.0	50	UMF1V4R7MDD
	6.8	5×5	0.12	3	2.6	80	UMF1V6R8MDD
	10	5×5	0.12	3.5	2.6	80	UMF1V100MDD
	15	6.3×5	0.12	5.25	1.3	115	UMF1V150MDD
	22	6.3×5	0.12	7.7	1.3	115	UMF1V220MDD

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.