ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

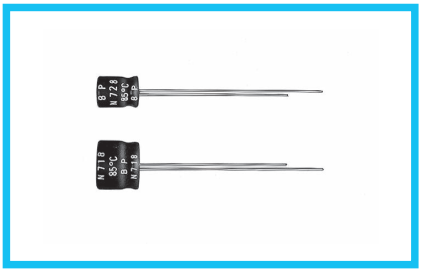
UMP

5mmL, Bi-Polarized

BP Bi-polarized

Anti-Solvent Feature

- Bi-polarized series with 5mm height.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).



UMP ← Bi-polarized UMA

■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +85°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	0.1 to 47μF
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 0.05CV or 10 (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	50
tan δ (MAX.)	0.24	0.20	0.17	0.17	0.15	0.15

Stability at Low Temperature — Measurement frequency : 120Hz

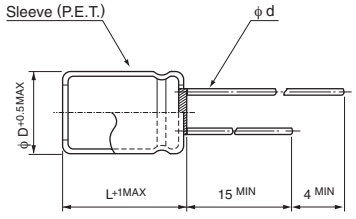
Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio (MAX.)	Z−25°C / Z+20°C	4	3	2	2	2	2
	Z−40°C / Z+20°C	8	6	4	4	3	3

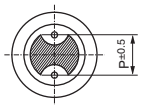
Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C with the polarity inverted every 250 hours.

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 85°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 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	P	1	A	3	3	0	M	D	D

- 11: Configuration ※
- 9: Capacitance tolerance (±20%)
- 6 7 8: Rated capacitance (33μF)
- 4 5: Rated voltage (10V)
- 3: Series name
- 1 2: Type

※Configuration

φ D	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	0.70	1.00	1.17	1.36	1.50

● Dimension table in next page.

UMP

■ 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) (85℃/120Hz)	Part Number
6.3 (0J)	22	5×5	0.24	10	28	UMP0J220MDD
	33	6.3×5	0.24	10.395	37	UMP0J330MDD
	47	6.3×5	0.24	14.805	45	UMP0J470MDD
10 (1A)	10	4×5	0.20	10	17	UMP1A100MDD
	22	6.3×5	0.20	11	33	UMP1A220MDD
	33	6.3×5	0.20	16.5	41	UMP1A330MDD
16 (1C)	4.7	4×5	0.17	10	12	UMP1C4R7MDD
	10	5×5	0.17	10	23	UMP1C100MDD
	22	6.3×5	0.17	17.6	37	UMP1C220MDD
	33	6.3×5	0.17	26.4	49	UMP1C330MDD
25 (1E)	3.3	5×5	0.17	10	12	UMP1E3R3MDD
	4.7	5×5	0.17	10	16	UMP1E4R7MDD
	10	6.3×5	0.17	12.5	27	UMP1E100MDD
35 (1V)	2.2	4×5	0.15	10	8.4	UMP1V2R2MDD
	3.3	5×5	0.15	10	16	UMP1V3R3MDD
	4.7	5×5	0.15	10	18	UMP1V4R7MDD
	10	6.3×5	0.15	17.5	29	UMP1V100MDD
50 (1H)	0.1	4×5	0.15	10	1.0	UMP1H0R1MDD
	0.22	4×5	0.15	10	2.0	UMP1HR22MDD
	0.33	4×5	0.15	10	2.8	UMP1HR33MDD
	0.47	4×5	0.15	10	4.0	UMP1HR47MDD
	1	4×5	0.15	10	8.4	UMP1H010MDD
	2.2	5×5	0.15	10	13	UMP1H2R2MDD
	3.3	5×5	0.15	10	17	UMP1H3R3MDD
	4.7	6.3×5	0.15	11.75	20	UMP1H4R7MDD

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.