ALUMINUM ELECTROLYTIC CAPACITORS

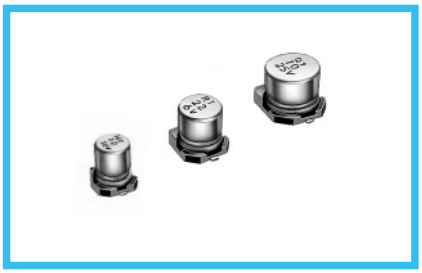
nichicon

WP

5.5mmL Chip Type, Bi-Polarized series

For SMD | Bi-polarized | Anti-Solvent Feature

- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2002/95/EC).



WP → Smaller → ZP

■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +85°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	0.1 to 100µF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.05CV or 10 (µA) ,whichever is greater.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 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 ZT / Z20 (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 1000 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

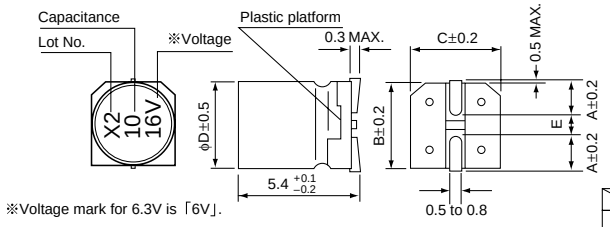
Shelf Life — After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.

Resistance to soldering heat — The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.

Capacitance change	Within ±10% of the initial capacitance value
tan δ	Less than or equal to the initial specified value
Leakage current	Less than or equal to the initial specified value

Marking — Black print on the case top.

■Chip Type



※Voltage mark for 6.3V is「6V」.

(mm)

φD	4	5	6.3	8
A	1.8	2.1	2.4	3.3
B	4.3	5.3	6.6	8.3
C	4.3	5.3	6.6	8.3
E	1.0	1.3	2.2	2.3

Type numbering system (Example : 16V 10µF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
U	W	P	1	C	1	0	0	M	C	L	1	G	B

- 1 2 3: Type
- 4 5: Series name
- 6 7 8: Rated voltage (16V)
- 9 10 11: Rated capacitance (10µF)
- 12 13: Capacitance tolerance (±20%)
- 14: Configuration
- Taping code

■Dimensions

Cap. (µF) \ V	6.3		10		16		25		35		50	
Code	0J		1A		1C		1E		1V		1H	
0.1	0R1										4	1.0
0.22	R22										4	2.0
0.33	R33										4	2.8
0.47	R47										4	4.0
1	010										4	8.4
2.2	2R2								4	8.4	5	13
3.3	3R3						5	12	5	16	5	17
4.7	4R7				4	12	5	16	5	18	6.3	20
10	100		4	17	5	23	6.3	27	6.3	29	8	36
22	220	5	28	6.3	33	6.3	37	8	50	8	54		
33	330	6.3	37	6.3	41	6.3	49	8	61				
47	470	6.3	45	8	61	8	75					Case size φD (mm)	Rated ripple
100	101	8	82										

Rated ripple current (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

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UN(p.104) series if high C/V products are reqired.
- Please refer to page 3 for the minimum order quantity.