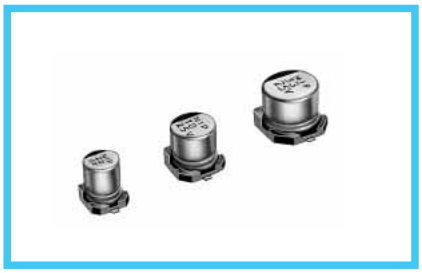
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

WF Chip Type, Low Impedance series

For SMD | Low Impedance | Anti-Solvent Feature



- Chip type, low impedance temperature range up to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.

WG ← Low Impedance — **WF** — Low Impedance → WT

■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 ~ +105°C
Rated Voltage Range	6.3 ~ 35V
Rated Capacitance Range	1 ~ 220µF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (µA), whichever is greater.
tan δ	Measurement frequency : 120Hz, Temperature : 20°C

Rated voltage (V)	6.3	10	16	25	35
tan δ (MAX.)	0.22	0.19	0.16	0.14	0.12

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35
Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	2	2	2	2	2
	Z−55°C / Z+20°C	4	4	3	3	3

Endurance

After 1000 hours' application of rated voltage at 105°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 leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.

Resistance to soldering heat

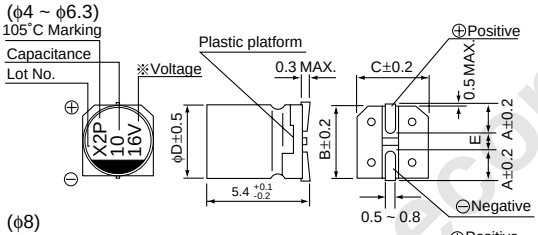
The capacitors shall be kept on the hot plate maintained at 250°C, for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.

Capacitance change	Within ±10% of initial value
tan δ	Initial specified value or less
Leakage current	Initial specified value or less

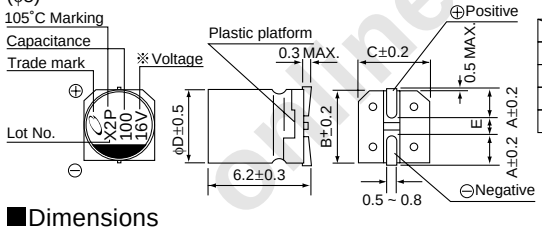
Marking — Black print on the case top.

■Chip Type

(φ4 ~ φ6.3)



(φ8)



(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

※ Voltage mark for 6.3V is 6V.

Type numbering system (Example : 16V 10µF)

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

φD	Code
4 ~ 6.3	GB
8	GS

Taping code

Configuration

Capacitance tolerance (±20%)

Rated Capacitance (10µF)

φD	Code
4 ~ 6.3	CR
8	BR

Rated voltage (16V)

Series name

Type

- The lead-free product is also available upon request. In this case, L will be put at 11th digit of type numbering system. Size φ8, CL will be put at 10th and 11th digit of type numbering system.

■Dimensions

Cap. (µF) \ V	Code	6.3			10			16			25			35		
		0J			1A			1C			1E			1V		
1	010													4	5.0	50
1.5	1R5													4	5.0	50
2.2	2R2													4	5.0	50
3.3	3R3													4	5.0	50
4.7	4R7										4	5.0	50	4	5.0	50
6.8	6R8										4	5.0	50	5	2.6	80
10	100							4	5.0	50	5	2.6	80	5	2.6	80
15	150							5	2.6	80	6.3	1.3	115	6.3	1.3	115
22	220	4	5.0	50	5	2.6	80	5	2.6	80	6.3	1.3	115	6.3	1.3	115
33	330	5	2.6	80	5	2.6	80	6.3	1.3	115	6.3	1.3	115	8	0.8	150
47	470	5	2.6	80	6.3	1.3	115	6.3	1.3	115	8	0.8	150	8	0.8	150
68	680	6.3	1.3	115	6.3	1.3	115	8	0.8	150	8	0.8	150			
100	101	6.3	1.3	115	8	0.8	150	8	0.8	150						
150	151	8	0.8	150	8	0.8	150							Case size φD (mm)	Impedance	Rated ripple
220	221	8	0.8	150												

Rated Ripple (mA rms) at 105°C 100kHz
Max. Impedance : (Ω) at 20°C 100kHz

●Frequency coefficient of rated ripple current

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

- Taping specifications are given in page 22.
- Recommended land size are given in page 23
- Please refer to page 3 for the minimum order quantity.

CAT.8100T