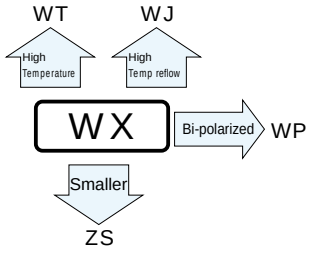
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

WX 5.5mmL Chip Type series

For SMD | Anti-Solvent Feature

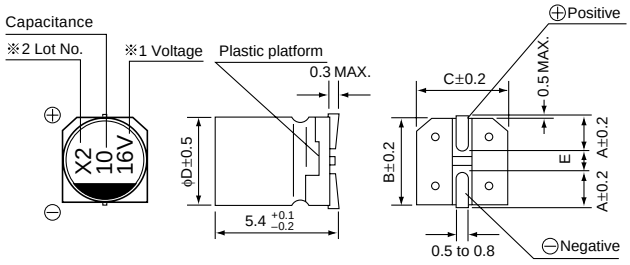
- Chip type with 5.5mm height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Load life of 2000 hours at 85°C.
- Compliant to the RoHS directive (2002/95/EC).



■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +85°C
Rated Voltage Range	4 to 50V
Rated Capacitance Range	0.1 to 330µF
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.
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C Rated voltage (V): 4 / 6.3 / 10 / 16 / 25 / 35 / 50 tan δ (MAX.): 0.35 (0.40) / 0.26 (0.30) / 0.20 (0.24) / 0.16 (0.19) / 0.14 (0.16) / 0.12 (0.14) / 0.12 (0.14) Values in ( ) applicable to WR, φ3 case size.
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 Impedance ratio ZT / Z20 (MAX.) Z−40°C / Z+20°C: 15 / 8 / 8 / 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. Capacitance change: Within ±20% of the initial capacitance value (Within ±25% for 4 V and φ3,WR series units) 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



(mm)

φD	3	4	5	6.3	8
A	1.5	1.8	2.1	2.4	3.3
B	3.3	4.3	5.3	6.6	8.3
C	3.3	4.3	5.3	6.6	8.3
E	0.8	1.0	1.3	2.2	2.3

※1. Voltage mark for 6.3V is「6V」.
In case of marking for φ3 units, "V" for rated voltage is omitted.
※2. In case of marking for φ3 units, Lot No.is expressed by a digit (month code).

Type numbering system (Example : 16V 10µF)

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

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

φD	Code
3	2
4 to 8	1

• In the case of size φ3 in ( ),parentheses, use WX in the 2nd and 3rd digit and put a 2 in the 12th digit of type numbering system.

● Dimension table in next page.

WX series

■Dimensions

Cap. (μF) \ V	4		6.3		10		16		25		35		50	
Code	0G		0J		1A		1C		1E		1V		1H	
0.1	0R1												4 (3)	1.0
0.22	R22												4 (3)	2.0
0.33	R33												4 (3)	2.8
0.47	R47												4 (3)	4.0
1	010												4 (3)	8.4 (8.0)
2.2	2R2										3	8.4	4 (3)	13 (10)
3.3	3R3										3	10	4	17
4.7	4R7								4 (3)	16 (12)	4	18	● 5	20 (18)
10	100						4 (3)	23 (18)	● 5	27 (24)	● 5	29 (24)	○ 6.3	33 (30)
22	220	3	19	4 (3)	28 (21)	● 5	33 (30)	● 5	37 (30)	○ 6.3	42 (38)	○ 6.3	46 (39)	□ 8	52 (43)
33	330	4	28	● 5	37 (34)	● 5	41 (34)	○ 6.3	49 (44)	○ 6.3	52 (46)	□ 8	62 (53)	8	71
47	470	4	33	● 5	45 (40)	○ 6.3	52 (47)	○ 6.3	58 (52)	□ 8	70 (60)	8	80		
56	560	5	42	○ 6.3	52 (46)	○ 6.3	57 (50)	○ 6.3	63 (57)	□ 8	76 (65)				
100	101	5	56	○ 6.3	70 (47)	○ 6.3	76 (54)	6.3	86	8	110				
150	151	6.3	79	6.3	71	□ 8	111 (76)								
220	221	6.3	96	□ 8	110 (74)	8	135							Case size φD (mm)	Rated ripple
330	331	8	145	8	170										

( ) is also available with φ3mm upon request.

Rated ripple current (mArms) at 85°C 120Hz

• In the case of size φ3 in ( ),parentheses, use WX at 2nd and 3rd digit and put 2 at the 12th digit of type numbering system.

( ) = φ3 units and WR Series

Size φ4 is available for capacitors marked. " ● "
Size φ5 is available for capacitors marked. " ○ "
Size φ6.3 is available for capacitors marked. " □ "
} In such a case, WR will be put at 2nd and 3rd digit of type numbering system.

●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 UR(p.94), UG(p.100) series if high C/V products are reqired.
- Please refer to page 3 for the minimum order quantity.