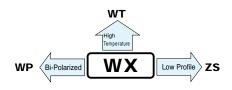
ALUMINUM ELECTROLYTIC CAPACITORS





- Chip type with 5.5mm height.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- Load life of 2000 hours at 85°C.

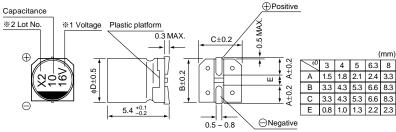




■Specifications

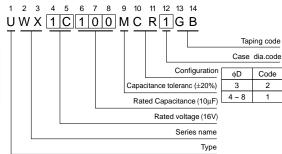
Item	Performance Characteristics												
Category Temperature Range	−40 ~ +85°C												
Rated Voltage Range	4 ~ 50V												
Rated Capacitance Range	0.1 ~ 330μF												
Capacitance Tolerance	±20% at 120Hz, 20°C												
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (µA) ,whichever is greater.												
	Measurement frequency : 120Hz, Temperature : 20°C												
tan δ	Rated voltage (V) 4				16		5	35	50				
	tan δ (MAX.) 0.35 (0.40)	0.26 (0.30)	0.20 (0.3	24) 0.16	(0.19)	0.14 (0	0.16) 0.	.12 (0.14)	0.12 (0.14	4)	Values in (() applicable to WR, φ3 case	
	Measurement frequency : 120Hz												
Oral III and a Tanana and a	Rated voltage (V)		4	6.3	5.3 10		16 25		3	5	50		
Stability at Low Temperature	Impedance ratio Z-25°C /		7	4	:	3	2	2	2	2	2		
	ZT / Z20 (MAX.) Z-40°C /	Z+20°C	15	8	8	8	4	4	3	3	3		
	After 2000 hours' application of rated voltage Capacitance change Within ±20% of initial value (Within ±25% for 4 V and \$\phi_3, WR series units)												
Endurance	After 2000 hours' application at 85°C, capacitors meet the	tar		ince cr	nange Within ±20% of initial value (Within ±25% for 4 V and \$\phi_3\$, WR series up 200% or less of initial specified value				k series units)				
Endurance	requirements listed at right.		Leakage Currer			·							
	Leakage Current initial specified value or less												
Shelf Life After leaving capacitors under no load at 85°C for 1000 hours, they meet the specified value for endurance characteristics listed above.													
Resistance to soldering	The capacitors shall be kept o	C	Capacitance change Within ±10% of initial value										
	for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.							tan δ		Initial specified value or less			
heat								Leakage current		Initial specified value or less			
Marking	Black print on the case top.												

■Chip Type



- % 1. Voltage mark for 6.3V is $\lceil 6 \text{V} \rfloor.$
- In case of marking for $\phi 3$ units, "V" for rated voltage is omitted. $\divideontimes 2$. In case of marking for $\phi 3$ units, Lot No.is expressed by a digit (month code).

Type numbering system (Example: 16V 10µF)



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



Dimensions

	V 4		6.3		1	10		16		25		35		50	
Cap. (µF)	Code	0	G	C)J	1	Α	1	С	1	E	1	V	1	Н
0.1	0R1													4 (3)	1.0
0.22	R22												 	4 (3)	2.0
0.33	R33													4 (3)	2.8
0.47	R47										i			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		i !		
150	151	6.3	79	6.3	71	□8	111 (76)						i		
220	221	6.3	96	□8	110 (74)	8	135						 	Case size	Rated
330	331	8	145	8	170								 	Case Size	ripple

^() is also available with $\phi 3mm$ upon request.

Rated Ripple (mA rms) at 85°C 120Hz

In this case of size $\phi 3$ in (), parentheses, use WX at 2nd and 3rd digit and put 2 at the 12th digit of type numbering system. () = $\phi 3$ units and WR series.

Size $\phi4$ is available for capacitors marked. " $\,^{\circ}$ " Size $\phi5$ is available for capacitors marked. " $\,^{\circ}$ " Size $\phi6.3$ is available for capacitors marked. " $_{\Box}$ " $_{\Box}$ "

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~					
Coefficient	0.70	1.00	1.17	1.36	1.50					

■Taping Specifications are given in page 21.

Please refer to page 3 for the minimum order quantity.