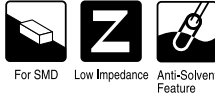


# ALUMINUM ELECTROLYTIC CAPACITORS

**WF** series Chip Type, Low Impedance



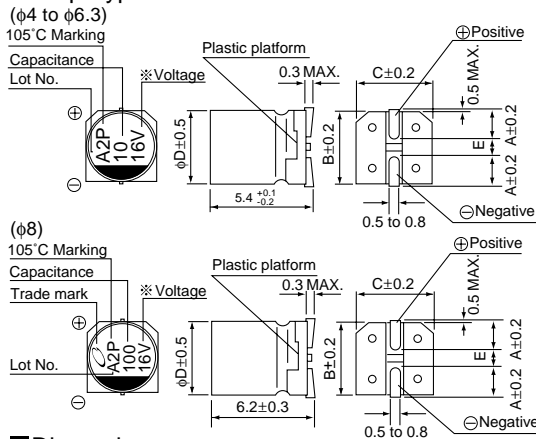
- Chip type, low impedance temperature range up to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



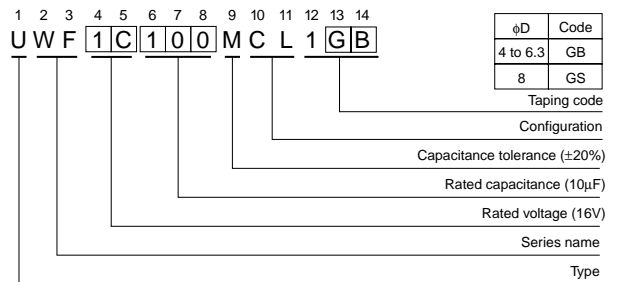
## Specifications

Item	Performance Characteristics				
Category Temperature Range	-55 to +105°C				
Rated Voltage Range	6.3 to 35V				
Rated Capacitance Range	1 to 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.				
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C				
	Rated voltage (V)	6.3	10	16	25
Stability at Low Temperature	Measurement frequency : 120Hz				
	Rated voltage (V)	6.3	10	16	25
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 105°C.				
	Capacitance change	Within ±20% of the initial capacitance value			
Shelf Life	After storing the capacitors under no load at 105°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.				
	tan δ	200% or less than the initial specified value			
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.				
	Leakage current	Less than or equal to the initial specified value			
Marking	Black print on the case top.				

## Chip Type



## Type numbering system (Example : 16V 10μF)



## Dimensions

Cap. (μF)	Code	6.3			10			16			25			35			
		OJ			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										
220	221	8	0.8	150													

## Frequency coefficient of rated ripple current

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

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please select UJ(p.164) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.