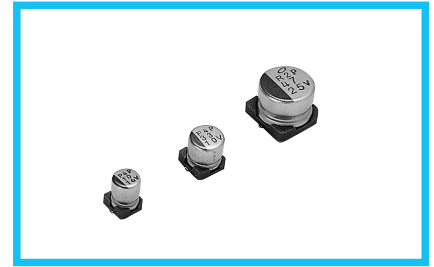


ALUMINUM ELECTROLYTIC CAPACITORS

WG Chip Type, Low Impedance series



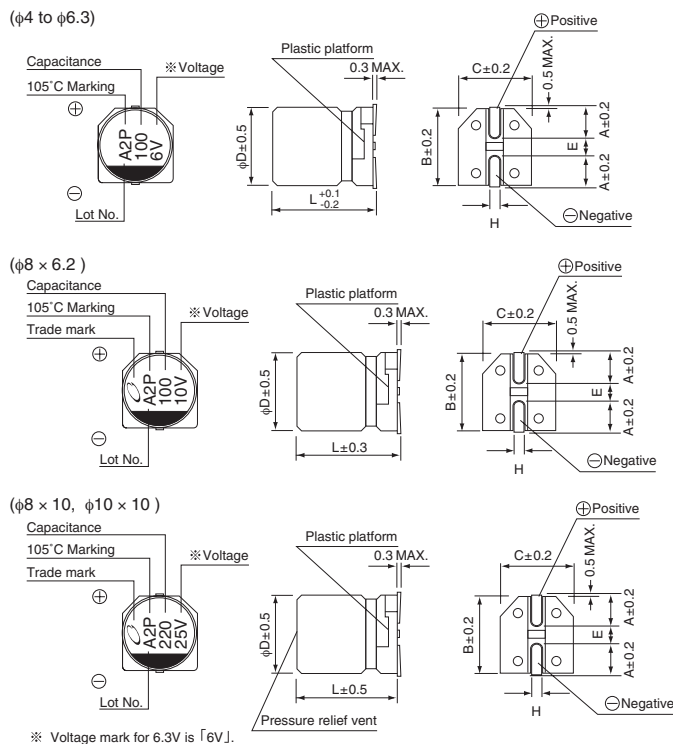
- Chip type, operating over wide temperature range of to -55 to $+105^{\circ}\text{C}$.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



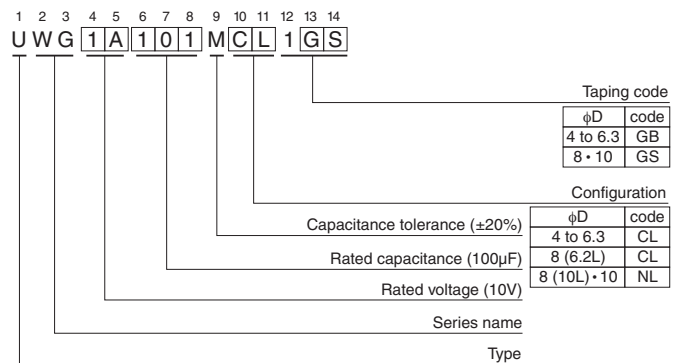
Specifications

Item	Performance Characteristics								
Category Temperature Range	-55 to $+105^{\circ}\text{C}$								
Rated Voltage Range	6.3 to 50V								
Rated Capacitance Range	1 to 1500 μF								
Capacitance Tolerance	$\pm 20\%$ 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 ($\tan \delta$)	Measurement frequency : 120Hz at 20°C								
	Rated voltage (V)	6.3	10	16	25	35	50		
Stability at Low Temperature	Measurement frequency : 120Hz								
	Rated voltage (V)		6.3	10	16	25	35	50	
	Impedance ratio	Z -25°C / Z $+20^{\circ}\text{C}$	2	2	2	2	2	2	
Endurance	ZT / Z20 (MAX.)		Z -55°C / Z $+20^{\circ}\text{C}$	4	4	3	3	3	3
	Capacitance change	Within $\pm 20\%$ of the initial capacitance value							
	$\tan \delta$	200% or less than the initial specified value							
Shelf Life	Leakage current		Less than or equal to the initial specified value						
	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 .								
	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.								
Resistance to soldering heat	Capacitance change		Within $\pm 10\%$ of the initial capacitance value						
	$\tan \delta$		Less than or equal to the initial specified value						
	Leakage current		Less than or equal to the initial specified value						
Marking	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 .								
	Black print on the case top.								

Chip Type



Type numbering system (Example : 10V 100 μF)



$\phi\text{D} \times \text{L}$	4 × 5.4	5 × 5.4	6.3 × 5.4	8 × 6.2	8 × 10	10 × 10
A	1.8	2.1	2.4	3.3	2.9	3.2
B	4.3	5.3	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	6.2	10	10
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

(mm)

● Dimension table in next page.

■ Dimensions

Cap. (μ F)	V	6.3			10			16		
	Code	0J			1A			1C		
10	100							4 × 5.4	3.0	60
22	220	4 × 5.4	3.0	60				5 × 5.4	1.8	95
33	330				5 × 5.4	1.8	95			
47	470	5 × 5.4	1.8	95				6.3 × 5.4	1.0	140
68	680	6.3 × 5.4	1.0	140				8 × 6.2	0.4	230
100	101	6.3 × 5.4	1.0	140	8 × 6.2	0.4	230	8 × 6.2	0.4	230
150	151				8 × 6.2	0.4	230			
220	221	8 × 6.2	0.4	230	8 × 10	0.3	450	10 × 10	0.15	670
330	331	8 × 10	0.3	450				10 × 10	0.15	670
470	471				10 × 10	0.15	670	10 × 10	0.15	670
680	681							10 × 10	0.15	670
1000	102	10 × 10	0.15	670	10 × 10	0.15	670			
1500	152	10 × 10	0.15	670						

Cap. (μ F)	V	25			35			50		
	Code	1E			1V			1H		
1	010				4 × 5.4	3.0	60	4 × 5.4	5.0	30
2.2	2R2				4 × 5.4	3.0	60	4 × 5.4	5.0	30
3.3	3R3				4 × 5.4	3.0	60	4 × 5.4	5.0	30
4.7	4R7				4 × 5.4	3.0	60	5 × 5.4	3.0	50
6.8	6R8	4 × 5.4	3.0	60	5 × 5.4	1.8	95			
10	100				5 × 5.4	1.8	95	6.3 × 5.4	2.0	70
22	220	6.3 × 5.4	1.0	140	6.3 × 5.4	1.0	140	8 × 6.2	0.7	120
33	330	6.3 × 5.4	1.0	140	8 × 6.2	0.4	230	8 × 10	0.6	300
47	470	8 × 6.2	0.4	230	8 × 6.2	0.4	230	10 × 10	0.3	500
68	680	8 × 10	0.3	450						
100	101	8 × 10	0.3	450	10 × 10	0.15	670	10 × 10	0.3	500
220	221	10 × 10	0.15	670	10 × 10	0.15	670	10 × 10	0.3	500
330	331	10 × 10	0.15	670	10 × 10	0.15	670	Case size ϕ D × L (mm)	Impedance	Rated ripple
470	471	10 × 10	0.15	670						

Max. Impedance (Ω) at 20°C 100kHz
 Rated ripple current (mArms) at 105°C 100kHz

● 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.160) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.