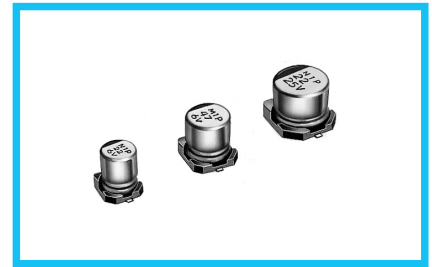


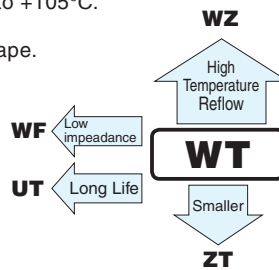
ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

WT series Chip Type, Wide Temperature Range



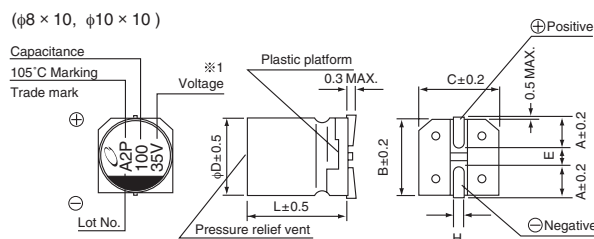
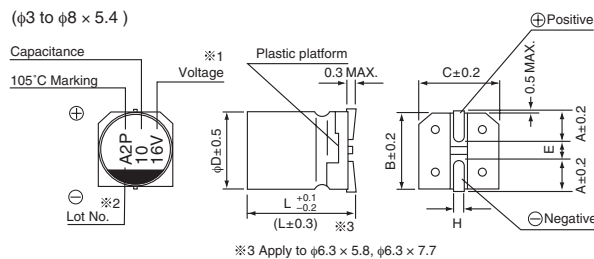
- Chip type operating over wide temperature range of to -55 to $+105^{\circ}\text{C}$.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU).



Specifications

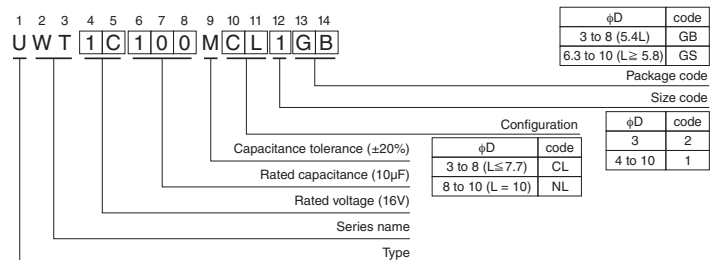
Item	Performance Characteristics								
Category Temperature Range	-55 to +105°C								
Rated Voltage Range	4 to 50V								
Rated Capacitance Range	0.1 to 1500μF								
Capacitance Tolerance	±20% at 120Hz, 20°C								
Leakage Current	After 2 minutes' application of rated voltage, leakage current 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)	4	6.3	10	16	25	35	50	
	tan δ (MAX.)	0.40	0.30	0.24	0.20	0.16	0.14	0.14	
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
		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 1000 hours at 105°C.		Capacitance change	Within ±25% of the initial capacitance value for capacitors of φ3mm unit, and 16V or less. Within ±20% of the initial capacitance value for capacitors of 25V or more.					
			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 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	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



- ※1. Voltage mark for 6.3V is 「6V」. In case of marking for $\phi 3$ units, 「V」 for rated voltage is omitted.
 ※2. In case of marking for $\phi 3$ units. Lot No is expressed by a digit (month code).

Type numbering system (Example : 16V $10\mu\text{F}$)



$\phi D \times L$	3 × 5.4	4 × 5.4	5 × 5.4	6.3 × 5.4	6.3 × 5.8	6.3 × 7.7	8 × 5.4	8 × 10	10 × 10
A	1.5	1.8	2.1	2.4	2.4	2.4	3.3	2.9	3.2
B	3.3	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
C	3.3	4.3	5.3	6.6	6.6	6.6	8.3	8.3	10.3
E	0.8	1.0	1.3	2.2	2.2	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	5.4	5.8	7.7	5.4	10	10
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	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

● Dimension table in next page.

CAT.8100D

■ Dimensions

V	4	6.3	10	16	25	35	50		
Cap. (μF)	Code	0G	0J	1A	1C	1E	1V	1H	
0.1	0R1							4 × 5.4 (3)	1.0
0.22	R22							4 × 5.4 (3)	2.6
0.33	R33							4 × 5.4 (3)	3.2
0.47	R47							4 × 5.4 (3)	3.8
1	010							4 × 5.4 (3)	6.3 (5.9)
2.2	2R2						3 × 5.4	7.5	4 × 5.4 (3) 11 (9)
3.3	3R3						3 × 5.4	9	4 × 5.4 14
4.7	4R7					4 × 5.4 (3)	13 (10)	4 × 5.4 15	5 × 5.4 19
10	100				4 × 5.4 (3)	18 (14)	5 × 5.4 23	5 × 5.4 25	6.3 × 5.4 30
22	220	4 × 5.4 22	4 × 5.4 22	5 × 5.4 27	5 × 5.4 30	6.3 × 5.4 38	6.3 × 5.4 42	• 8 × 5.4	51 (45)
33	330	5 × 5.4 30	5 × 5.4 30	5 × 5.4 35	6.3 × 5.4 40	6.3 × 5.4 48	• 8 × 5.4 59 (52)	6.3 × 7.7	60
47	470	5 × 5.4 36	5 × 5.4 36	6.3 × 5.4 46	6.3 × 5.4 50	• 8 × 5.4 66 (59)	6.3 × 5.8 63	6.3 × 7.7	63
100	101	6.3 × 5.4 60	6.3 × 5.4 60	6.3 × 5.4 60	6.3 × 5.4 60	6.3 × 7.7 91	6.3 × 7.7 84	8 × 10	140
150	151	6.3 × 5.8 86	6.3 × 5.8 86	6.3 × 5.8 86	6.3 × 7.7 95	8 × 10 140	8 × 10 155	10 × 10	180
220	221	• 8 × 5.4 102 (91)	• 8 × 5.4 102 (91)	6.3 × 7.7 105	6.3 × 7.7 105	8 × 10 155	8 × 10 190	10 × 10	220
330	331	6.3 × 7.7 105	6.3 × 7.7 105	8 × 10 195	8 × 10 195	8 × 10 190	10 × 10 300		
470	471	8 × 10 210	8 × 10 210	8 × 10 210	8 × 10 230	10 × 10 300			
680	681	8 × 10 210	8 × 10 210	10 × 10 310	10 × 10 310				
1000	102	8 × 10 230	8 × 10 230	10 × 10 310				Case size	Rated
1500	152	10 × 10 310	10 × 10 310					φ D × L (mm)	ripple

Rated ripple current (mA rms) at 105°C 120Hz

() is also available with φ3mm upon request. In such a case, [2] will be put at 12th digit of type numbering system.

Size φ6.3 × 5.8 is available for capacitors marked. " • " In such a case, [6] will be put at 12th 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 UX(p.154), UJ(p.160) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.