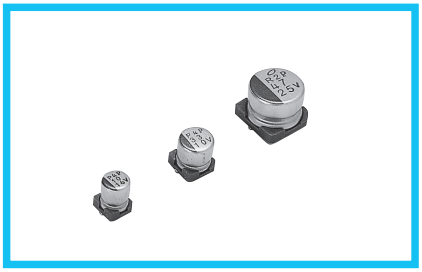
nichicon

UWG

Chip Type, Low Impedance

For SMD | Low Impedance | Anti-Solvent Feature



- Chip type, operating over wide temperature range of to −55 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).
- AEC-Q200 compliant. Please contact us for details.

UUD ← Low Impedance | UWG | Low Impedance → UWF

■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C
Rated Voltage Range	6.3 to 50V
Rated Capacitance Range	1 to 1500μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 2 minutes' application of rated voltage at 20°C, 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	35	50
tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.12

Stability at Low Temperature — Measurement frequency : 120Hz

Rated voltage (V)		6.3	10	16	25	35	50
Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	2	2	2	2	2	2
	Z−55°C / Z+20°C	4	4	3	3	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 ±20% of the initial capacitance value
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.

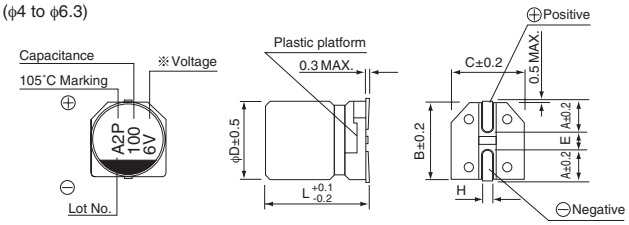
Resistance to soldering heat — The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.

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

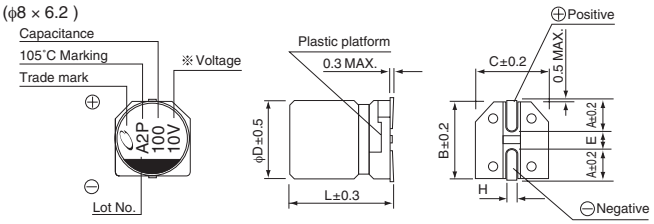
Marking — Black print on the case top.

■Chip Type

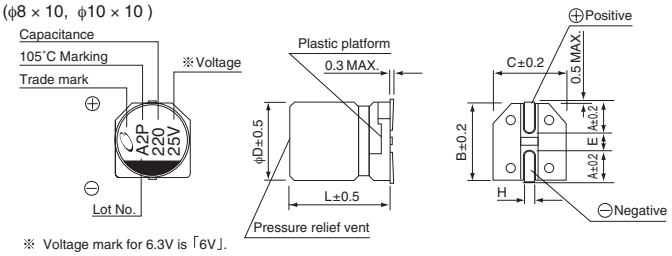
(φ4 to φ6.3)



(φ8 × 6.2)



(φ8 × 10, φ10 × 10)



※ Voltage mark for 6.3V is「6V」.

Type numbering system (Example : 10V 100μF)

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

Taping code

φD	code
4 to 6.3	GB
8・10	GS

Configuration

φD	code
4 to 6.3	CL
8 (6.2L)	CL
8 (10L)・10	NL

Capacitance tolerance (±20%)

Rated capacitance (100μF)

Rated voltage (10V)

Series name

Type

(mm)

φD × 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

●Dimension table in next page.

UWG

■Dimensions

Cap. (μF) \ V	Code	6.3			10			16		
		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. (μF) \ V	Code	25			35			50		
		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 φD×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 UUJ(p.164) if high C/V products are reqired.
- Please refer to page 3 for the minimum order quantity.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Nichicon:

UWG1V101MNL1GS UWF1V6R8MCL1GB UWG0J220MCL1GB UWG0J470MCL1GB UWG0J680MCL1GB UWG0J101MCL1GB UWG0J221MCL1GS UWG0J331MNL1GS UWG0J102MNL1GS UWG0J152MNL1GS UWG1A330MCL1GB UWG1A101MCL1GS UWG1A151MCL1GS UWG1A221MNL1GS UWG1A471MNL1GS UWG1A102MNL1GS UWG1C100MCL1GB UWG1C220MCL1GB UWG1C470MCL1GB UWG1C680MCL1GS UWG1C101MCL1GS UWG1C221MNL1GS UWG1C331MNL1GS UWG1C471MNL1GS UWG1C681MNL1GS UWG1E6R8MCL1GB UWG1E220MCL1GB UWG1E330MCL1GB UWG1E470MCL1GS UWG1E680MNL1GS UWG1E101MNL1GS UWG1E221MNL1GS UWG1E331MNL1GS UWG1E471MNL1GS UWG1V010MCL1GB UWG1V2R2MCL1GB UWG1V3R3MCL1GB UWG1V4R7MCL1GB UWG1V100MCL1GB UWG1V220MCL1GB UWG1V330MCL1GS UWG1V470MCL1GS UWG1V221MNL1GS UWG1V331MNL1GS UWG1H010MCL1GB UWG1H2R2MCL1GB UWG1H3R3MCL1GB UWG1H4R7MCL1GB UWG1H100MCL1GB UWG1H220MCL1GS UWG1H330MNL1GS UWG1H470MNL1GS UWG1H101MNL1GS UWG1H221MNL1GS