THE DATASHEET OF

UCV1E102MNL1GS

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ALUMINUM ELECTROLYTIC CAPACITORS

nichicon

UCV

Chip Type, Low Impedance.

For SMD　Low Impedance

- Chip type, low impedance temperature range up to +105°C.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).
- AEC-Q200 Qualified. Please contact us for details.

UCM
Smaller
Higher capacitance
UCV

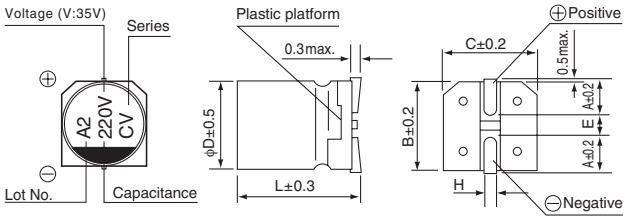
■Specifications

Item	Performance Characteristics
Category Temperature Range	−55 to +105°C
Rated Voltage Range	16 to 35V
Rated Capacitance Range	220 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 (μA).
Tangent of loss angle (tan δ)	Rated voltage (V): 16 / 25 / 35 tan δ (max.): 0.16 / 0.14 / 0.12 Measurement frequency : 120Hz at 20°C
Stability at Low Temperature	Rated voltage (V): 16 / 25 / 35 Impedance ratio ZT / Z20 (max.) Z(−25°C) / Z(+20°C): 2 / 2 / 2 Z(−40°C) / Z(+20°C): 3 / 3 / 3 Z(−55°C) / Z(+20°C): 4 / 3 / 3 Measurement frequency : 120Hz
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C. Capacitance change: Within ±30% 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.

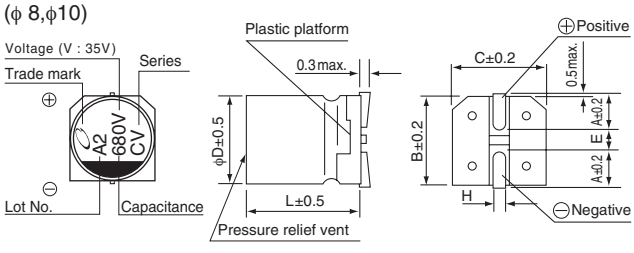
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

■Chip Type

(φ 6.3)



(φ 8,φ10)



Type numbering system (Example : 35V 220μF)

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

- 1 2 3 : Type
- 4 5 : Series name
- 6 7 8 : Rated voltage (35V)
- 9 : Rated capacitance (220μF)
- 10 : Capacitance tolerance (±20%)
- 11 : Configuration
- 12 13 14 : Taping code

φD	Code
6.3	CL
8・10	NL

Voltage

V	16	25	35
Code	C	E	V

Standard (mm)

φDXL	6.3×7.7	8×10	10×10
A	2.4	2.9	3.2
B	6.6	8.3	10.3
C	6.6	8.3	10.3
E	2.2	3.1	4.5
L	7.7	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

●Frequency coefficient of rated ripple current

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

●Dimension table in next page.

UCV

■Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L (mm)	tan δ	Leakage Current (μA) (at 20℃ after 2 minutes)	Impedance (Ω) max. (20℃/100kHz)	Rated Ripple (mArms) (105℃/100kHz)	Part Number
16 (1C)	470	6.3×7.7	0.16	75.2	0.16	600	UCV1C471MCL1GS
	820	8×10	0.16	131.2	0.08	850	UCV1C821MNL1GS
	1500	10×10	0.16	240	0.06	1190	UCV1C152MNL1GS
25 (1E)	330	6.3×7.7	0.14	82.5	0.16	600	UCV1E331MCL1GS
	560	8×10	0.14	140	0.08	850	UCV1E561MNL1GS
	1000	10×10	0.14	250	0.06	1190	UCV1E102MNL1GS
35 (1V)	220	6.3×7.7	0.12	77	0.16	600	UCV1V221MCL1GS
	470	8×10	0.12	164.5	0.08	850	UCV1V471MNL1GS
	680	10×10	0.12	238	0.06	1190	UCV1V681MNL1GS

- For taping specifications, recommended land size/soldering by reflow and minimum order quantity, please refer to the Guidelines for Aluminum Electrolytic Capacitors.

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