



**THE DATASHEET OF
UCV1V681MNL1GS**



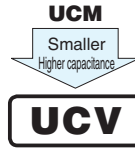
ALUMINUM ELECTROLYTIC CAPACITORS

UCV

Chip Type, 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.



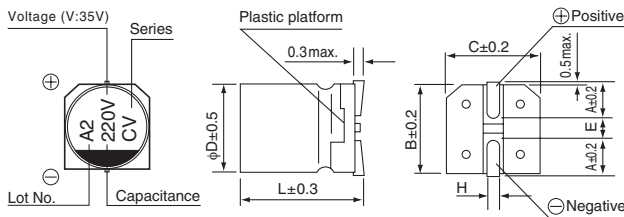
Specifications

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)	<table border="1"> <tr> <th>Rated voltage (V)</th> <th>16</th> <th>25</th> <th>35</th> </tr> <tr> <td>tan δ (max.)</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table>	Rated voltage (V)	16	25	35	tan δ (max.)	0.16	0.14	0.12	Measurement frequency : 120Hz at 20°C										
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Stability at Low Temperature	<table border="1"> <tr> <th colspan="2">Rated voltage (V)</th> <th>16</th> <th>25</th> <th>35</th> </tr> <tr> <td rowspan="3">Impedance ratio ZT / Z20 (max.)</td> <td>Z(-25°C) / Z(+20°C)</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(+20°C)</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z(-55°C) / Z(+20°C)</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	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
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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.	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±30% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>200% or less than the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table>	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												
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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.	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±10% of the initial capacitance value</td> </tr> <tr> <td>tan δ</td> <td>Less than or equal to the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than or equal to the initial specified value</td> </tr> </table>	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												
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Marking	Black print on the case top.																			

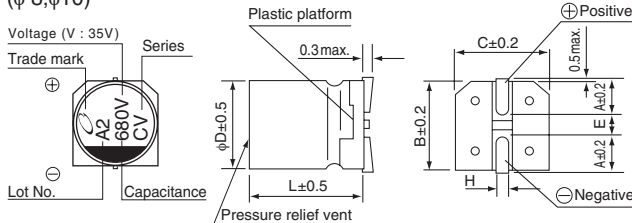
※ I : Leakage Current (μA), C : Rated Capacitance (μF), V : Rated Voltage (V)

Chip Type

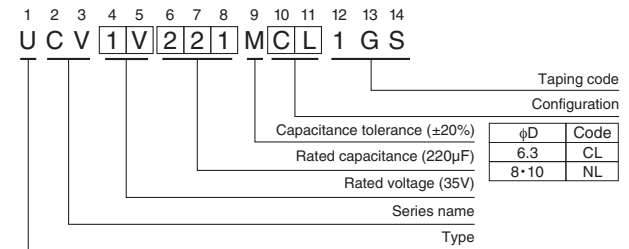
(φ 6.3)



(φ 8,φ10)



Type numbering system (Example : 35V 220μF)



Voltage	16	25	35
V			
Code	C	E	V

Standard	(mm)		
	φ6.3	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 (μ F)	Case Size ϕ D \times L (mm)	$\tan \delta$	Leakage Current (μ A) (at 20°C after 2 minutes)	Impedance (Ω) max. (20°C/100kHz)	Rated Ripple (mA rms) (105°C/100kHz)	Part Number
16 (1C)	470	6.3 \times 7.7	0.16	75.2	0.16	600	UCV1C471MCL1GS
	820	8 \times 10	0.16	131.2	0.08	850	UCV1C821MNL1GS
	1500	10 \times 10	0.16	240	0.06	1190	UCV1C152MNL1GS
25 (1E)	330	6.3 \times 7.7	0.14	82.5	0.16	600	UCV1E331MCL1GS
	560	8 \times 10	0.14	140	0.08	850	UCV1E561MNL1GS
	1000	10 \times 10	0.14	250	0.06	1190	UCV1E102MNL1GS
35 (1V)	220	6.3 \times 7.7	0.12	77	0.16	600	UCV1V221MCL1GS
	470	8 \times 10	0.12	164.5	0.08	850	UCV1V471MNL1GS
	680	10 \times 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.

Looking for pricing, stock, or lifecycle information?

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