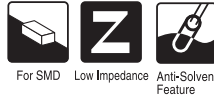


ALUMINUM ELECTROLYTIC CAPACITORS

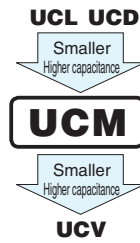
UCM

Chip Type, Low Impedance



Expanded

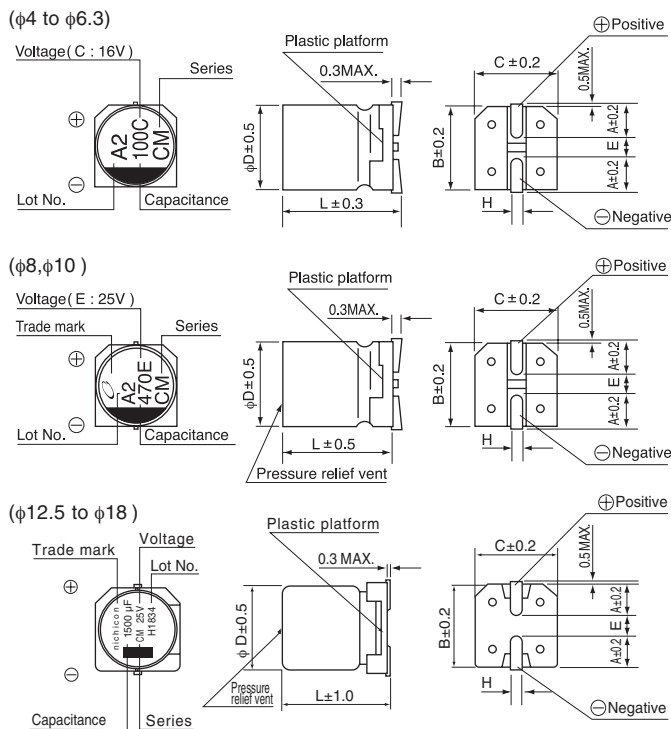
- Chip type, low impedance temperature range up to +105°C.
- Applicable to automatic mounting machine fed with carrier tape.
- Compliant to the RoHS directive (2011/65/EU, (EU)2015/863).
- AEC-Q200 compliant. Please contact us for details.



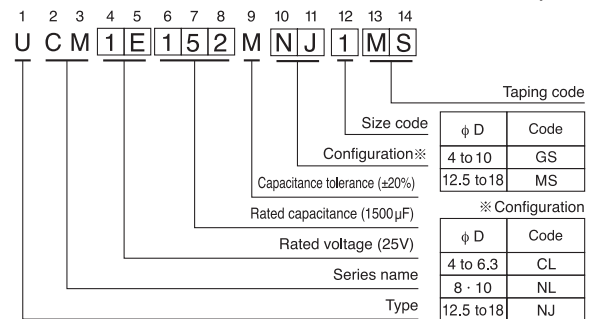
Specifications

Item	Performance Characteristics																																						
Category Temperature Range	-55 to +105°C																																						
Rated Voltage Range	6.3 to 100V																																						
Rated Capacitance Range	10 to 5100μF																																						
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 0.01 CV or 3 (μA), whichever is greater.																																						
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C																																						
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tan δ (MAX.)</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> </tr> </table> <p>For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. (φ12.5 to φ18)</p>	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.07																		
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tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.07																														
Stability at Low Temperature	Measurement frequency : 120Hz																																						
	<table border="1"> <tr> <td>Rated voltage (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </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> <td>2</td> <td>2</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> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z-55°C / Z+20°C</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table>	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2	Z-40°C / Z+20°C	3	3	3	3	3	3	3	3	Z-55°C / Z+20°C	4	4	4	3	3	3	3	3
	Rated voltage (V)	6.3	10	16	25	35	50	63	80	100																													
Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2																														
	Z-40°C / Z+20°C	3	3	3	3	3	3	3	3																														
	Z-55°C / Z+20°C	4	4	4	3	3	3	3	3																														
Endurance	<p>The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 5000 hours (2000 hours for φD ≤ 10) at 105°C.</p> <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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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	<p>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.</p> <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																																
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



Type numbering system (Example : 25V 1500μF)



φD × L	(mm)											
	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10	10 × 10	12.5 × 13.5	12.5 × 21	16 × 16.5	16 × 21.5	18 × 16.5	18 × 21.5
A	1.8	2.1	2.4	2.4	2.9	3.2	5.15	5.15	5.65	5.65	6.65	6.65
B	4.3	5.3	6.6	6.6	8.3	10.3	13.6	13.6	17.1	17.1	19.1	19.1
C	4.3	5.3	6.6	6.6	8.3	10.3	13.6	13.6	17.1	17.1	19.1	19.1
E	1	1.3	2.2	2.2	3.1	4.5	3.3	3.3	5.8	5.8	5.8	5.8
L	5.8	5.8	5.8	7.7	10	10	13.5	21	16.5	21.5	16.5	21.5
H	0.5 to 0.8	0.5 to 0.8	0.5 to 5.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

Voltage	V	6.3	10	16	25	35	50
Code	j	A	C	E	V	H	

● Dimension table in next page.



■ Dimensions

Cap. (μ F)	V Code	6.3			10			16			25			35			50		
		0J			1A			1C			1E			1V			1H		
10	100																	● 4□5.8 2.30 85 5□5.8 0.88 165	
22	220									4□5.8 1.00 160		4□5.8 1.00 160						5□5.8 0.88 165	
33	330									4□5.8 1.00 160		5□5.8 0.36 240							
47	470							4□5.8 1.00 160		5□5.8 0.36 240		5□5.8 0.36 240						6.3□5.8 0.68 195	
68	680					4□5.8 1.00 160		5□5.8 0.36 240		5□5.8 0.36 240		6.3□5.8 0.26 300							
100	101	4□5.8 1.00 160						5□5.8 0.36 240		6.3□5.8 0.26 300		6.3□5.8 0.26 300						6.3□7.7 0.34 350	
150	151					5□5.8 0.36 240		6.3□5.8 0.26 300		6.3□7.7 0.16 600		6.3□7.7 0.16 600							
220	221	5□5.8 0.36 240				6.3□5.8 0.26 300		6.3□5.8 0.26 300		6.3□7.7 0.16 600								8□10 0.18 670	
330	331	6.3□5.8 0.26 300				6.3□7.7 0.16 600		6.3□7.7 0.16 600										8□10 0.08 850 10□10 0.12 900	
470	471	6.3□7.7 0.16 600				6.3□7.7 0.16 600				8□10 0.08 850								12.5□13.5 0.12 1340	
560	561																	10□10 0.06 1190	
680	681	6.3□7.7 0.16 600						8□10 0.08 850											
750	751																	12.5□21 0.08 1970	
820	821									10□10 0.06 1190								16□16.5 0.08 1820	
910	911																	12.5□13.5 0.058 1420	
1000	102					8□10 0.08 850		10□10 0.06 1190											
1100	112																	18□16.5 0.078 1980	
1200	122																	16□21.5 0.05 2440	
1500	152	8□10 0.08 850				10□10 0.06 1190				12.5□13.5 0.058 1420									
1600	162																	12.5□21 0.046 2080 18□21.5 0.05 2550	
1800	182																	16□16.5 0.047 1910	
2200	222	10□10 0.06 1190																18□16.5 0.045 2060	
2400	242									12.5□21 0.046 2080									
2700	272									16□16.5 0.047 1910		16□21.5 0.034 2540							
3600	362									18□16.5 0.045 2060		18□21.5 0.032 2640							
3900	392									16□21.5 0.034 2540									
5100	512									18□21.5 0.032 2640							Case size ϕ D□L (mm) Impedance Rated ripple		

● In this case, □ will be put at 12th digit of type numbering system.

Cap. (μ F)	V Code	63			80			100		
		1J			1K			2A		
130	131							12.5□13.5 0.18 1050		
220	221					12.5□13.5 0.18 1050		12.5□21 0.11 1580		
240	241							16□16.5 0.10 1500		
330	331							18□16.5 0.098 1670		
360	361	12.5□13.5 0.14 1250				12.5□21 0.11 1580				
390	391					16□16.5 0.10 1500		16□21.5 0.066 2040		
510	511					18□16.5 0.098 1670		18□21.5 0.063 2140		
560	561	12.5□21 0.086 1850				16□21.5 0.066 2040				
620	621	16□16.5 0.082 1740								
750	751					18□21.5 0.063 2140				
820	821	18□16.5 0.08 1880								
910	911	16□21.5 0.055 2330								
1200	122	18□21.5 0.054 2430								Case size ϕ D□L (mm) Impedance Rated ripple

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

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

● 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