ALUMINUM ELECTROLYTIC CAPACITORS

UCM Chip Type, Low Impedance

For SMD | Z Low Impedance | Anti-Solvent Feature
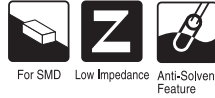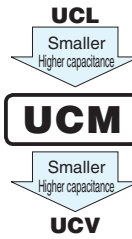
● Chip type, low impedance temperature range up to +105°C.
● Applicable to automatic mounting machine fed with carrier tape.
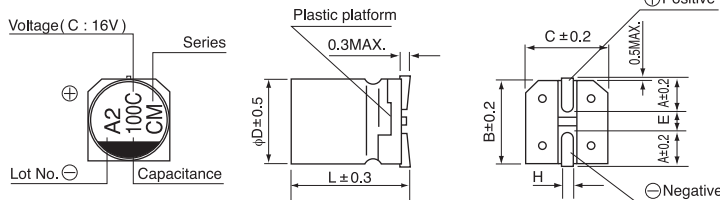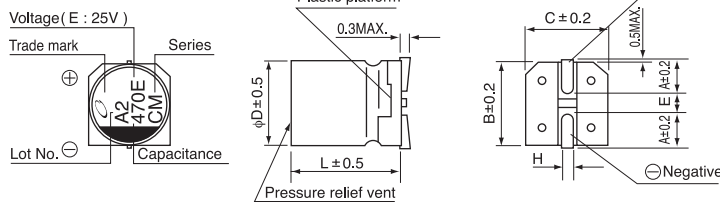● Compliant to the RoHS directive (2011/65/EU).

UCL
Smaller
Higher capacitance
↓
UCM
↓
Smaller
Higher capacitance
UCV

■Specifications

Item	Performance Characteristics						
Category Temperature Range	−55 to +105°C						
Rated Voltage Range	6.3 to 50V						
Rated Capacitance Range	10 to 2200μF						
Capacitance Tolerance	±20% at 120Hz, 20°C						
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV						

Tangent of loss angle (tan δ)	Rated voltage (V)	6.3	10	16	25	35	50	Measurement frequency : 120Hz at 20°C
	tan δ (MAX.)	0.26	0.19	0.16	0.14	0.12	0.10	

Stability at Low Temperature		Rated voltage (V)	6.3	10	16	25	35	50	Measurement frequency : 120Hz
	Impedance ratio ZT / Z20 (MAX.)	Z−25°C / Z+20°C	2	2	2	2	2	2	
		Z−40°C / Z+20°C	3	3	3	3	3	3	
		Z−55°C / Z+20°C	4	4	4	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 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.		

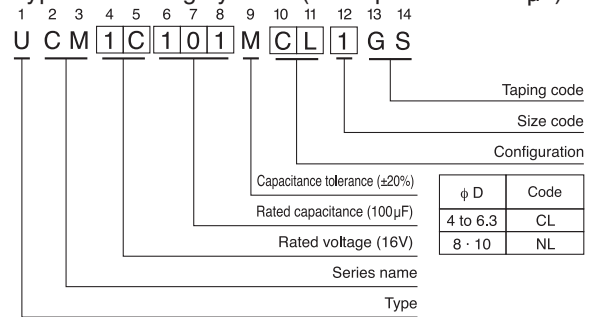| Resistance to soldering heat	The capacitors are kept on a hot plate for 30 seconds, which is maintained at 250°C. The capacitors shall meet the characteristic requirements listed at right when they are removed from the plate and restored to 20°C.	Capacitance change	Within ±10% of the initial capacitance 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.		

■Chip Type

(φ4 to φ6.3)

Voltage (C : 16V)
Series
A2
100C
CM
Lot No. ⊖
⊕
Capacitance

Plastic platform
0.3MAX.
φD±0.5
L±0.3

⊕Positive
C±0.2
0.5MAX.
B±0.2
A±0.2
E
A±0.2
H
⊖Negative

(φ8 × 10L, φ10)

Voltage (E : 25V)
Trade mark
Series
A2
470E
CM
Lot No. ⊖
⊕
Capacitance

Plastic platform
0.3MAX.
φD±0.5
L±0.5
Pressure relief vent

⊕Positive
C±0.2
0.5MAX.
B±0.2
A±0.2
E
A±0.2
H
⊖Negative

Type numbering system (Example : 16V 100μF)

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

- Taping code
- Size code
- Configuration
- Capacitance tolerance (±20%)
- Rated capacitance (100μF)
- Rated voltage (16V)
- Series name
- Type

φ D	Code
4 to 6.3	CL
8 · 10	NL

(mm)

φD×L	4×5.8	5×5.8	6.3×5.8	6.3×7.7	8×10	10×10
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.8	5.8	5.8	7.7	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

Voltage

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

● Dimension table in next page.

CAT.8100E

UCM

■Dimensions

Cap. (µF)	Code	6.3 / 0J			10 / 1A			16 / 1C			25 / 1E			35 / 1V			50 / 1H		
10	100																●4×5.8 / 5×5.8	2.30 / 0.88	85 / 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						
560	561													10×10	0.06	1190			
680	681	6.3×7.7	0.16	600				8×10	0.08	850									
820	821										10×10	0.06	1190						
1000	102				8×10	0.08	850	10×10	0.06	1190									
1500	152	8×10	0.08	850	10×10	0.06	1190										Case size φD×L (mm)	Impedance	Rated ripple
2200	222	10×10	0.06	1190															

MAX. Impedance (Ω) at 20℃ 100kHz, Rated ripple current(mArms) at 105℃ 100kHz
●In this 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	0.35	0.50	0.64	0.83	1.00

CAT.8100E