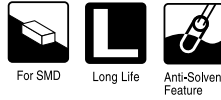
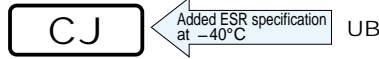


ALUMINUM ELECTROLYTIC CAPACITORS

CJ Chip Type, High Reliability.
Low temperature ESR specification.
series



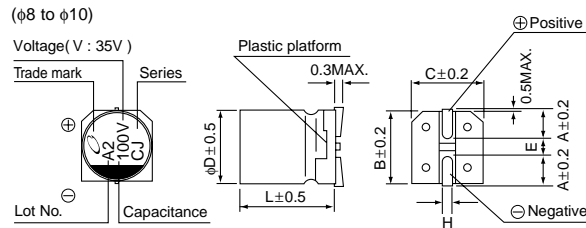
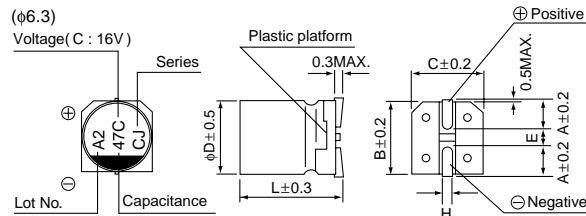
- Chip type, high temperature range, for +125°C use.
- Added ESR specification after the test at -40°C (φ6.3 sizes provide only for the first stage.)
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).



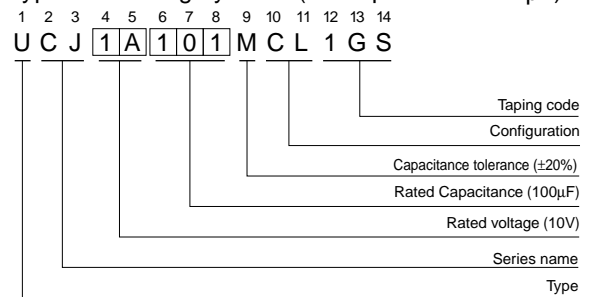
Specifications

Item	Performance Characteristics																							
Category Temperature Range	-40 to +125°C																							
Rated Voltage Range	10 to 50V																							
Rated Capacitance Range	10 to 470μF																							
Capacitance Tolerance	±20% at 120Hz, 20°C																							
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4(μA), whichever is greater.																							
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz, Temperature : 20°C																							
	Rated voltage (V)	10	16	25	35	50																		
Stability at Low Temperature	Measurement frequency : 120Hz																							
	Impedance ratio ZT / Z20 (MAX.)	Z-40°C / Z+20°C	12	8	6	4	4																	
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 125°C.		<table border="1"> <tr> <td>Capacitance change</td> <td colspan="5">Within ±30% of initial value</td> </tr> <tr> <td>tan δ</td> <td colspan="5">300% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> </table>				Capacitance change	Within ±30% of initial value					tan δ	300% or less of initial specified value					Leakage current	Less than or equal to the initial specified value				
	Capacitance change	Within ±30% of initial value																						
tan δ	300% or less of initial specified value																							
Leakage current	Less than or equal to the initial specified value																							
Shelf Life	After storing the capacitors under no load at 125°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the specified value for endurance characteristics listed above.																							
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate, the capacitors meet the characteristic requirements listed at right when they are restored to 20°C.		<table border="1"> <tr> <td>Capacitance change</td> <td colspan="5">Within ±10% of initial value</td> </tr> <tr> <td>tan δ</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td colspan="5">Less than or equal to the initial specified value</td> </tr> </table>				Capacitance change	Within ±10% of initial 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 initial 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 : 10V 100μF)



φD×L (mm)	6.3×8.7	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	8.7	10	10
H	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1

Dimensions

Cap. (μF)	V		10			16			25			35			50						
	Code		1A			1C			1E			1V			1H						
10	100											6.3×8.7	14	-	95	6.3×8.7	14	-	95		
22	220								6.3×8.7	14	-	95	6.3×8.7	14	-	95	6.3×8.7	14	-	95	
33	330								6.3×8.7	14	-	95	6.3×8.7	14	-	95	8×10	2.0	6.0	200	
47	470					6.3×8.7	14	-	95	6.3×8.7	14	-	95	6.3×8.7	14	-	95	10×10	1.5	4.5	330
100	101	6.3×8.7	14	-	95	8×10	2.0	6.0	250	8×10	2.0	6.0	250	10×10	1.5	4.5	400	10×10	1.5	4.5	330
220	221	8×10	2.0	6.0	250	10×10	1.5	4.5	400	10×10	1.5	4.5	400	10×10	1.5	4.5	400	Case size φD×L (mm)	Initial endurance test	Rated ripple	
330	331	10×10	1.5	4.5	400	10×10	1.5	4.5	400	10×10	1.5	4.5	400								
470	471	10×10	1.5	4.5	400																

Max. ESR (Ω) at -40°C 100kHz, Rated Ripple (mArms) at 125°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 refer to page 3 for the minimum order quantity.