

# UCA

## +125°C Surface Mount Aluminum Electrolytic Capacitors



### FEATURES

- Capacitance Range 10 to 330  $\mu\text{F}$
  - Standard Case Sizes
- High Reliability
  - Automatic insertion applicable

### SPECIFICATIONS

<b>Capacitance Tolerance</b>	<b><math>\pm 20\%</math> at 120Hz, 20°C</b>										
<b>Operating Temperature Range</b>	<b>-40°C to +125°C</b>										
<b>Dissipation Factor 120Hz, 20°C (Max)</b>	<b>WVDC</b>	10	16	25	35	50					
	<b>tan <math>\delta</math></b>	.32	.24	.2	.18	.18					
<b>Leakage current</b>	<b>Time</b>	2 minutes									
		.01 CV or 3 $\mu\text{A}$ , whichever is greater									
<b>Impedance Ratio at Low Temperature (120Hz)</b>	<b>WVDC</b>	10	16	25	35	50					
	<b>-40°C/20°C</b>	12	8	6	4	4					
<b>Load Life</b>	<b>2,000 hours (1,000 hours for 8x6.2) at 125°C with rated voltage</b>										
		Capacitance change Dissipation factor Leakage current					$\leq 30\%$ of initial measured values $\leq 300\%$ initial specified value $\leq 100\%$ Initial specified value				
<b>Shelf Life</b>	<b>1000 hours at 105°C with no voltage applied.</b>										
		Capacitance change Dissipation factor Leakage current					$\leq 30\%$ of initial measured values $\leq 300\%$ initial specified value $\leq 100\%$ Initial specified value				
<b>Resistance to Soldering Heat</b>	Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature.										
		Capacitance change Dissipation factor Leakage current					$\leq 10\%$ of the initial measured value $\leq 100\%$ of specified value $\leq 100\%$ of specified value				
<b>Ripple Current Multipliers</b>		<b>Temperature(°C)</b>					<b>Frequency(Hz)</b>				
	Capacitance	105	85	70	60	40	50	120	300	1k	10k
	$C \leq 47\mu\text{F}$	1.0	1.65	1.78	2.1	2.4	.75	1.0	1.35	1.55	2.0
	$47\mu\text{F} < C \leq 330\mu\text{F}$	1.0	1.65	1.78	2.1	2.4	.8	1.0	1.25	1.34	1.5

## STANDARD PART LISTING

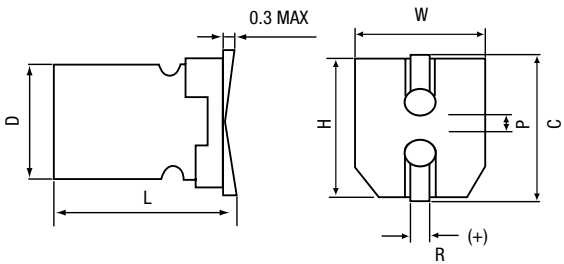
Capacitance (μF)	WVDC	ic <sup>®</sup> PART NUMBER	Maximum E.S.R. Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) at 120 Hz, +125°C	Dimensions DxL (mm)
10	50	106UCA050M	29.842	24	8x6.2
22	50	226UCA050M	13.564	38	8x6.2
33	35	336UCA035M	9.043	44	8x6.2
33	50	336UCA050M	9.043	46	8x10
47	25	476UCA025M	7.407	48	8x6.2
47	35	476UCA035M	6.349	52	8x10
47	50	476UCA050M	6.349	58	10x10

Capacitance (μF)	WVDC	ic <sup>®</sup> PART NUMBER	Maximum E.S.R. Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) at 120 Hz, +125°C	Dimensions DxL (mm)
100	10	107UCA010M	5.305	58	8x6.2
100	25	107UCA025M	3.482	74	8x10
100	35	107UCA035M	2.984	80	10x10
220	10	227UCA010M	2.411	90	8x10
220	25	227UCA025M	1.583	116	10x10
330	10	337UCA010M	1.608	112	10x10

## PHYSICAL DIMENSIONS

WVDC (SV) (μF)	10 (13)	25 (32)	35 (44)	50 (63)
10				8x6.2
22				8x6.2
33			8x6.2	8x10
47		8x6.2	8x10	10x10
100	8x6.2	8x10	10x10	
220	8x10	10x10		
330	10x10			

D x L(mm)



D+0.2 MAX	L	C±0.2	H±0.2	W±0.2	P±0.2	R
8	6.2±0.3	9.1	8.3	8.3	2.3	0.5~0.8
8	10±0.5	9.1	8.3	8.3	3.1	0.8~1.1
10	10±0.5	11.1	10.3	10.3	4.5	0.8~1.1

(mm)