

# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS



**Upgrade**  
**YC**

Chip type, Standard Series

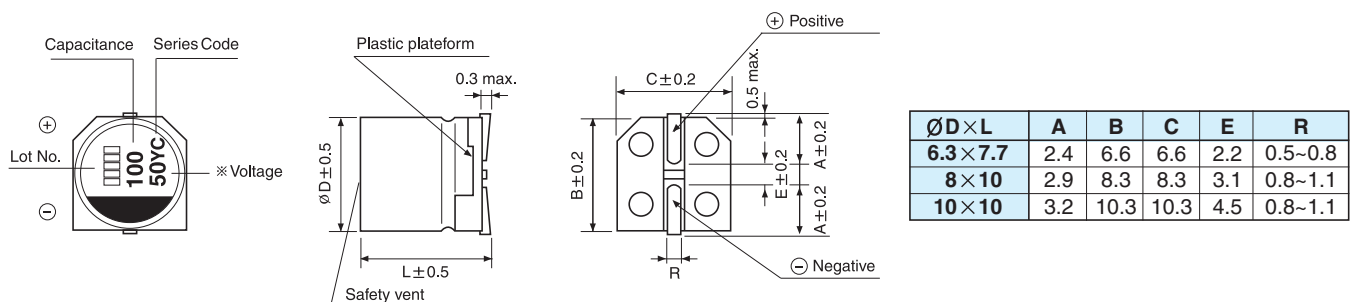


- Endurance with ripple current: 10000 hours at 105°C
- Complied to the RoHS directive

Item	Characteristics														
<b>Operating temperature range</b>	-55 ~ +105°C														
<b>Leakage current max.</b>	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)														
<b>Capacitance tolerance</b>	$\pm 20\%$ at 120Hz, 20°C														
<b>Dissipation factor max. (at 120Hz, 20°C)</b>	<table border="1"> <tr> <td>WV</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> </tr> <tr> <td>tan<math>\delta</math></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> </tr> </table>	WV	16	25	35	50	63	80	tan $\delta$	0.16	0.14	0.12	0.10	0.08	0.08
WV	16	25	35	50	63	80									
tan $\delta$	0.16	0.14	0.12	0.10	0.08	0.08									
<b>Low temperature characteristics (Impedance ratio at 100kHz)</b>	$Z(-25^\circ C) / Z(+20^\circ C) \leq 1.5$ $Z(-55^\circ C) / Z(+20^\circ C) \leq 2.0$														
<b>Load life</b>	<p>After an application of DC bias voltage plus the rated AC ripple current for 10000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within <math>\pm 30\%</math> of initial value</td> </tr> <tr> <td>tan<math>\delta</math></td> <td>Less than 200% of the specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> </table>	Capacitance change	Within $\pm 30\%$ of initial value	tan $\delta$	Less than 200% of the specified value	ESR	Less than 200% of the specified value	Leakage current	Less than specified value						
Capacitance change	Within $\pm 30\%$ of initial value														
tan $\delta$	Less than 200% of the specified value														
ESR	Less than 200% of the specified value														
Leakage current	Less than specified value														
<b>Shelf life (at 105°C)</b>	After 1000 hours no load test, leakage current, capacitance and tan $\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4														
<b>Resistance to soldering heat</b>	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 10 seconds.</p> <table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within <math>\pm 10\%</math> of initial value</td> </tr> <tr> <td>tan<math>\delta</math></td> <td>Less than specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within $\pm 10\%$ of initial value	tan $\delta$	Less than specified value								
Leakage current	Less than specified value														
Capacitance change	Within $\pm 10\%$ of initial value														
tan $\delta$	Less than specified value														

## DRAWING

Unit : mm



HYBRID TYPES

# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

**YC** series

## ● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu\text{F}$ \diagdown WV	16			25			35		
47							6.3×7.7	35	2000
68				6.3×7.7	30	2000	6.3×7.7	35	2000
100				6.3×7.7	30	2000	8×10	27	2300
150	6.3×7.7	27	2200	8×10	27	2300	8×10	27	2300
							10×10	20	2500
220				8×10	27	2300			
270	8×10	22	2500	10×10	20	2500	10×10	20	2500
330				10×10	20	2500			
470	10×10	18	2600						

$\mu\text{F}$ \diagdown WV	50			63			80		
10				6.3×7.7	80	1500			
15	6.3×7.7	40	1600						
22				6.3×7.7	80	1500	8×10	45	1600
				8×10	40	1600			
33	6.3×7.7	40	1600	8×10	40	1600			
	8×10	30	1800	10×10	30	1800			
39							10×10	35	1700
47	8×10	30	1800						
56	10×10	25	2000	10×10	30	1800			
68	10×10	25	2000						
100	10×10	25	2000						

Ripple current (mA rms) at 105°C, 100kHz  
 ESR (mΩ) at 20°C, 100kHz  
 Case size  $\varnothing D \times L$  (mm)

## ● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	120Hz	1kHz	10kHz	100kHz
Coefficient	0.05	0.30	0.70	1.00