

# CONDUCTIVE POLYMER HYBRID ALUMINUM ELECTROLYTIC CAPACITORS

**YH** Chip type, High Temperature Series

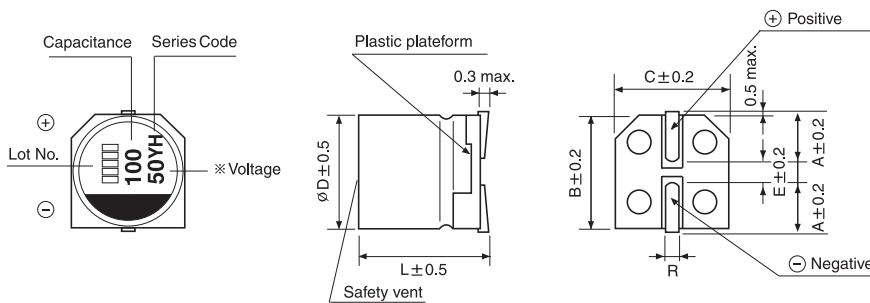


- High temperature range, for 125°C use
- Complied to the RoHS directive

Item	Characteristics												
Operating temperature range	-55 ~ +125°C												
Leakage current max.	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)												
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C												
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63 ~ 100</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> </tr> </table>	WV	16	25	35	50	63 ~ 100	tan $\delta$	0.16	0.14	0.12	0.10	0.08
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tan $\delta$	0.16	0.14	0.12	0.10	0.08								
Low temperature characteristics (Impedance ratio at 100kHz)	$Z(-25^\circ C) / Z(+20^\circ C) \leq 1.5$ $Z(-55^\circ C) / Z(+20^\circ C) \leq 2.0$												
Load life	<p>After an application of DC bias voltage plus the rated AC ripple current for 4000 hours at 125°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				
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ESR	Less than 200% of the specified value												
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Shelf life(at 125°C)	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												
Resistance to soldering heat	<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						
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## DRAWING

Unit : mm



$\varnothing D \times L$	A	B	C	E	R
6.3×7.7	2.4	6.6	6.6	2.2	0.5~0.8
8×10	2.9	8.3	8.3	3.1	0.8~1.1
10×10	3.2	10.3	10.3	4.5	0.8~1.1
10×12.5	3.2	10.3	10.3	4.5	0.8~1.1

**YH** series

HYBRID TYPES

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu\text{F}$ \diagdown WV	16			25			35		
47							6.3×7.7	35	1400
68				6.3×7.7	30	1400	6.3×7.7	35	1400
100				6.3×7.7	30	1400	8×10	27	1600
150	6.3×7.7	27	1450	8×10	27	1600	8×10	27	1600
							10×10	20	2000
220				8×10	27	1600			
270	8×10	22	1700	10×10	20	2000	10×10	20	2000
330				10×10	20	2000	10×12.5	17	2260
470	10×10	18	2100	10×12.5	16	2260			
560	10×12.5	14	2320						

$\mu\text{F}$ \diagdown WV	50			63			80		
10				6.3×7.7	80	900			
15	6.3×7.7	40	1100						
22				6.3×7.7	80	900	8×10	45	1100
				8×10	40	1100			
33	6.3×7.7	40	1100	8×10	40	1100			
	8×10	30	1250	10×10	30	1400			
39							10×10	35	1200
47	8×10	30	1250				10×12.5	32	1400
56	10×10	25	1600	10×10	30	1400			
68	10×10	25	1600	10×12.5	22	1650			
100	10×10	25	1600						
150	10×12.5	19	1820						

$\mu\text{F}$ \diagdown WV	100		
10	8×10	60	900
15	10×10	45	1120
18	10×12.5	40	1220

Ripple current (mA rms) at 125°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