

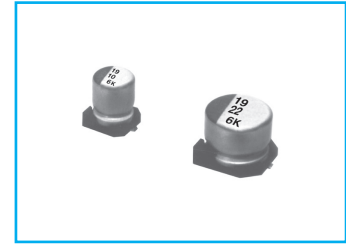
# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS

**CK** Chip type, Low Impedance, High CV Series

**IZI** Low Impedance **S** Solvent Proof

- Chip type, low impedance temperature range up to 105°C
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

ZC → **CK**  
Low Imp.

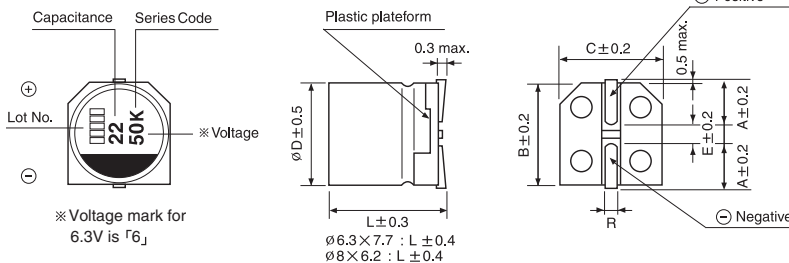


Item	Characteristics																								
Operating temperature range	-55 ~ +105°C																								
Leakage current max.	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)																								
Capacitance tolerance	$\pm 20\%$ at 120Hz, 20°C																								
Dissipation factor max. (at 120Hz, 20°C)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tan<math>\delta</math></td> <td>0.24</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> </tr> </table>	WV	6.3	10	16	25	35	50	63	80	100	tan $\delta$	0.24	0.19	0.16	0.14	0.12	0.12	0.10	0.10	0.10				
WV	6.3	10	16	25	35	50	63	80	100																
tan $\delta$	0.24	0.19	0.16	0.14	0.12	0.12	0.10	0.10	0.10																
Low temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63~100</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> </tr> <tr> <td>Z-55°C/Z+20°C</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> </tr> </table>	WV	6.3	10	16	25	35	50	63~100	Z-25°C/Z+20°C	2	2	2	2	2	2	3	Z-55°C/Z+20°C	3	3	3	3	3	3	4
WV	6.3	10	16	25	35	50	63~100																		
Z-25°C/Z+20°C	2	2	2	2	2	2	3																		
Z-55°C/Z+20°C	3	3	3	3	3	3	4																		
Load life (after application of the rated voltage for 2000 hours at 105°C)	<table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within <math>\pm 25\%</math> of initial value</td> </tr> <tr> <td>tan<math>\delta</math></td> <td>Less than 200% of specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within $\pm 25\%$ of initial value	tan $\delta$	Less than 200% of specified value																		
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tan $\delta$	Less than 200% of specified value																								
Shelf life (at 105°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 -Series code of CK is "K"

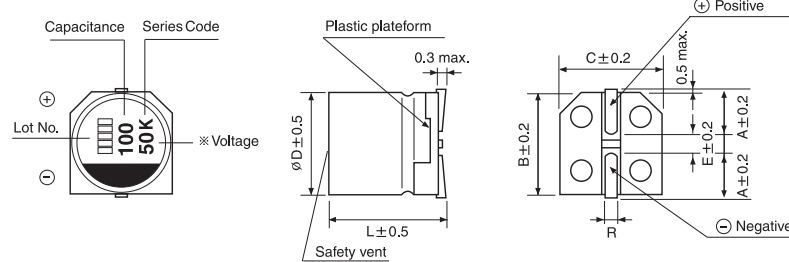
Unit : mm

( $\varnothing 6.3, \varnothing 8 \times 6.2$ )

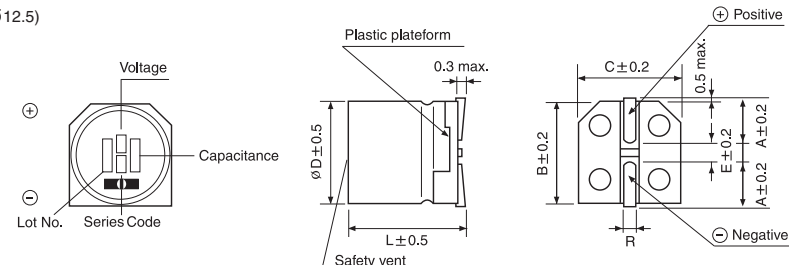


$\varnothing D \times L$	A	B	C	E	R
<b>6.3 × 5.8</b>	2.4	6.6	6.6	2.2	0.5~0.8
<b>6.3 × 7.7</b>	2.4	6.6	6.6	2.2	0.5~0.8
<b>8 × 6.2</b>	3.3	8.3	8.3	2.3	0.5~0.8
<b>8 × 10</b>	2.9	8.3	8.3	3.1	0.8~1.1
<b>10 × 10</b>	3.2	10.3	10.3	4.5	0.8~1.1
<b>12.5 × 13.5</b>	4.6	12.8	12.8	4.5	0.8~1.4

( $\varnothing 8 \times 10, \varnothing 10 \times 10$ )



( $\varnothing 12.5$ )



**CK** series

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu$ F \ WV	6.3			10			16			25			35			50		
10																6.3×5.8	1.0	165
15																6.3×5.8	1.0	165
22																6.3×5.8	1.0	165
33							6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.68	280
																8×6.2	0.63	300
47				6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.68	280
																8×6.2	0.63	300
68	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.34	450
													8×6.2	0.38	300			
100	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.17	450	10×10	0.18	670
										8×6.2	0.26	300						
150	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.17	450			
							8×6.2	0.26	300									
220	6.3×5.8	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8×10	0.17	450	10×10	0.09	670			
				8×6.2	0.26	300	8×6.2	0.26	300									
330	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.17	450	10×10	0.15	670						
	8×6.2	0.26	300															
470	8×10	0.17	450	8×10	0.17	450	10×10	0.09	670									
680	8×10	0.17	450	10×10	0.09	670												
1000	10×10	0.09	670															
1500	10×10	0.09	670															

$\mu$ F \ WV	63			80			100		
10	6.3×5.8	2.8	80	6.3×7.7	2.4	60			
22	6.3×7.7	2.1	120	8×10	1.3	130	8×10	2.0	130
33	8×10	1.0	250	8×10	1.3	130	10×10	1.5	200
47	8×10	1.0	250	10×10	1.2	200	12.5×13.5	1.0	500
68	10×10	0.8	400	12.5×13.5	0.8	500	12.5×13.5	1.0	500
100	10×10	0.8	400	12.5×13.5	0.8	500			
150	12.5×13.5	0.6	800	12.5×13.5	0.8	500			
220	12.5×13.5	0.6	800						

↑ Ripple current (mA rms) at 105°C, 100kHz  
 ↑ Impedance (Ω) at 20°C, 100kHz  
 ↑ Case size ØD x L (mm)

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz ≤
Coefficient	0.35	0.5	0.64	0.83	1.00