

# SURFACE MOUNT ALUMINUM ELECTROLYTIC CAPACITORS



Chip type, Low Impedance, High CV  
Series



ZC → CK  
Low Imp.



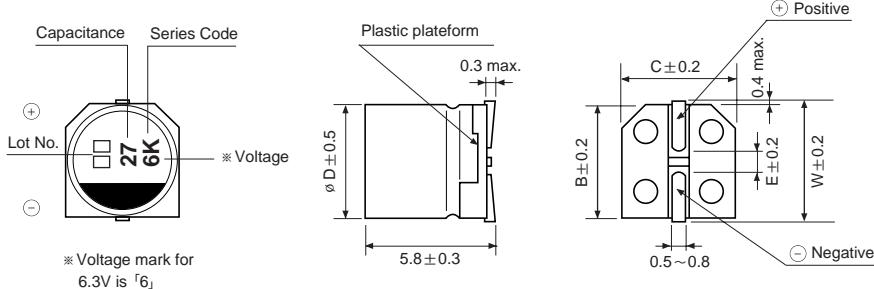
- Chip type, low impedance temperature range up to 105°C
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

Item	Characteristics												
<b>Operating temperature range</b>	-55 ~ +105°C												
<b>Leakage current max.</b>	$I = 0.01\text{CV}$ or $3\mu\text{A}$ 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>	WV	6.3	10	16	25	35	50						
	$\tan\delta$	0.24	0.19	0.16	0.14	0.12	0.12						
<b>Low temperature characteristics (Impedance ratio at 120Hz)</b>	WV	6.3	10	16	25	35	50						
	Z-25°C/Z+20°C	2	2	2	2	2	2						
	Z-55°C/Z+20°C	3	3	3	3	3	3						
<b>Load life (after application of the rated voltage for 2000 hours at 105°C)</b>	Leakage current	Less than specified value											
	Capacitance change	Within $\pm 25\%$ of initial value											
	$\tan\delta$	Less than 200% of 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.												
<b>Resistance to soldering heat</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 30 seconds.												
	Leakage current	Less than specified value											
	Capacitance change	Within $\pm 10\%$ of initial value											
	$\tan\delta$	Less than specified value											

## DRAWING

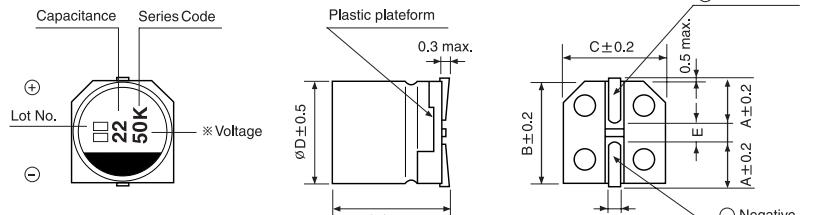
Unit : mm

(  $\varnothing 4$ ,  $\varnothing 5$ ,  $\varnothing 6.3 \times 5.8\text{mmL}$  )

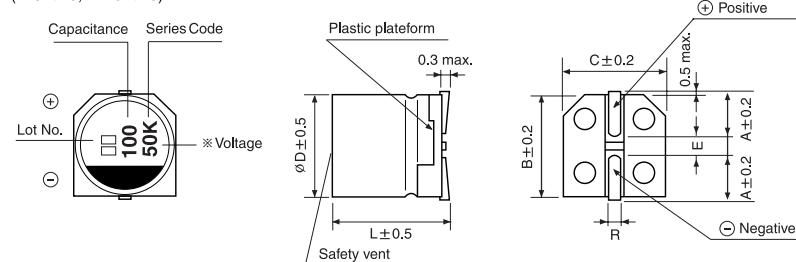


$\varnothing D$	W	A	B	C	E	R
<b>4 × 5.8</b>	4.8		4.3	4.3	1.0	0.5~0.8
<b>5 × 5.8</b>	6.0		5.3	5.3	1.4	0.5~0.8
<b>6.3 × 5.8</b>	7.1		6.6	6.6	2.2	0.5~0.8
<b>6.3 × 7.7</b>		2.4	6.6	6.6	2.2	0.5~0.8
<b>8 × 6.2</b>	3.4	8.3	8.3	2.3	0.5~0.8	
<b>8 × 10</b>	2.9	8.3	8.3	3.1	0.8~1.1	
<b>10 × 10</b>	3.2	10.3	10.3	4.5	0.8~1.1	

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



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



**CK** series

## ● DIMENSIONS &amp; MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu\text{F}$	WV	6.3			10			16			25			35			50		
1.0																	4 × 5.8	5.0	30
1.5																	4 × 5.8	5.0	30
2.2																	4 × 5.8	5.0	30
3.3																	4 × 5.8	5.0	30
4.7											4 × 5.8	1.8	50	4 × 5.8	1.8	80	5 × 5.8	1.52	85
6.8											4 × 5.8	1.8	60	5 × 5.8	0.76	150	5 × 5.8	1.52	85
10				4 × 5.8	1.8	80	4 × 5.8	1.8	80	4 × 5.8	1.8	80	5 × 5.8	0.76	150	6.3 × 5.8	0.88	165	
15				4 × 5.8	1.8	80	4 × 5.8	1.8	80	5 × 5.8	0.76	115	5 × 5.8	0.76	150	6.3 × 5.8	0.88	165	
22	4 × 5.8	1.8	80	4 × 5.8	1.8	80	5 × 5.8	0.76	150	5 × 5.8	0.76	140	5 × 5.8	0.76	150	6.3 × 5.8	0.88	165	
33	5 × 5.8	0.76	150	5 × 5.8	0.76	150	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 × 6.2	0.26	300	
47	5 × 5.8	0.76	150	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 × 6.2	0.26	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 × 6.2	0.26	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	
										8 × 6.2	0.26	300				10 × 10	0.09	670	
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							
330	6.3 × 7.7	0.34	280										10 × 10	0.09	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																

