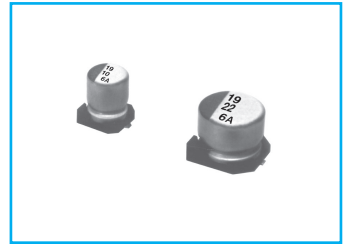
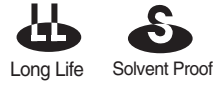


## CA Chip type, Long Life Series



- Chip type, long life capacitance in large case sizes
- Chip type with load life of 5000 hours at 105°C
- Designed for surface mounting on high density PC board
- Applicable to automatic insertion machine using carrier tape
- Complied to the RoHS directive

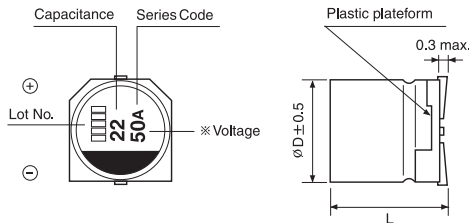


Item	Characteristics						
<b>Operating temperature range</b>	-55 ~ +105°C						
<b>Leakage current max.</b>	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes)						
<b>Capacitance tolerance</b>	$\pm 20\%$ at 120Hz, 20°C						
<b>Dissipation factor max. (at 120Hz, 20°C)</b>	WV	6.3	10	16	25	35	50
	tan $\delta$	0.28	0.24	0.2	0.16	0.13	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	3	3	3
	Z-55°C/Z+20°C	4	4	3	3	3	3
<b>Load life (after application of the rated voltage for 5000 hours at 105°C)</b>	Leakage current	Less than specified value					
	Capacitance change	Within $\pm 30\%$ of initial value					
	tan $\delta$	Less than 300% 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. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4						
<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 10 seconds.						
	Leakage current	Less than specified value					
	Capacitance change	Within $\pm 10\%$ of initial value					
	tan $\delta$	Less than specified value					

### DRAWING

Unit : mm

-Series code of CA is "A"



\* Please refer to drawing for CK Series in page 69 for detail drawing.

### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

$\mu F$	WV	6.3	10	16	25	35	50
10							6.3×5.8 30
22					6.3×5.8 38	6.3×5.8 42	6.3×7.7 120
33				6.3×5.8 40	6.3×5.8 48	6.3×7.7 57	8×10 140
47			6.3×5.8 46	6.3×5.8 50	6.3×7.7 63	8×10 92	8×10 170
100	6.3×5.8 60	6.3×7.7 81	6.3×7.7 81	8×10 116	8×10 116	10×10 151	10×10 310
220	6.3×7.7 101	8×10 141	10×10 216	10×10 216	10×10 216	10×10 216	
330	8×10 160	10×10 238	10×10 238	10×10 238	10×10 238		
470	10×10 254	10×10 254	10×10 254				
1000	10×10 313						

← Ripple current (mA rms) at 105°C, 120Hz  
 ↑ Case size ØD×L (mm)

### FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz $\leq$
Coefficient	0.70	1.00	1.17	1.36	1.50