

## CK Series

### +105°C, Surface Mount Type General Purpose(贴片普通品)

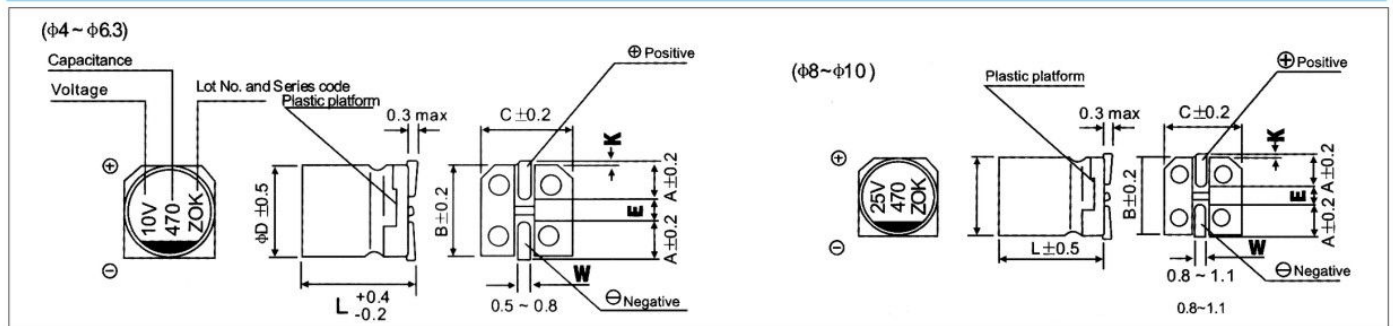
#### ◆ FEATURES

- Chip type operating over wide temperature range -40 to +105°C.
- Designed for surface mounting on high-density circuit board.
- Emboss carrier tape packing system is available for automatic insertion.

#### ◆ SPECIFICATIONS

Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C								
Rated Working Voltage Range	6.3 to 100V								
Nominal Capacitance Range	0.1~1500 μF								
Capacitance Tolerance	±20% (120Hz, +20°C)								
Leakage Current	I ≤ 0.01CV or 3 μA after 2 minutes (Whichever is greater) C=Nominal Capacitance(μF)      V=Rated Voltage(V)      I=Leakage Current(μA)								
tan δ (120Hz, +20°C)	Please see the attached standard products list								
Low Temperature Characteristics	Measurement frequency: 120Hz.								
	Working Voltage(V)	6.3	10	16	25	35	50	63	100
	Z-25°C/Z+20°C	4	3	2	2	2	2	3	3
Z-40°C/Z+20°C	8	6	4	4	3	3	4	4	
Load Life	After applying rated voltage for 1000 hours at +105°C ±2°C and then being stabilized at +20°C, capacitor shall meet the following limits.								
	Capacitance change	±20% of initial measured value(6.3 W.V.of miniature: ±30%)							
	tan δ	≤200% of initial specified value							
	DC leakage current	≤Initial specified value							
Shelf Life	After 1000 hours at +105°C ±2°C with no voltage applied and then being stabilized at +20°C, they meet the specified value life lift characteristics listed above.								
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20°C, capacitor shall meet the following limits.								
	Capacitance change	±10% of initial measured value							
	tan δ	≤Initial specified value							
	DC leakage current	≤Initial specified value							
Other	JIS C-5101 (IEC 60384)								

## CHIPTYPE



## CK Series

### ◆ STANDARD RATINGS

D	L	B,C	A	W	E	K
4.0	5.4	4.3	1.8	0.65±0.1	1.0	0.35-0.20 to +0.15
5.0	5.4	5.3	2.2	0.65±0.1	1.5	0.35-0.20 to +0.15
6.3	5.4	6.6	2.6	0.65±0.1	1.8	0.35-0.20 to +0.15
6.3	7.7	6.6	2.6	0.65±0.1	1.8	0.35-0.20 to +0.15
8.0	10.2	8.3	2.95	0.90±0.2	3.1	0.70-0.40 to +0.20
10.0	10.2	10.3	3.2	0.90±0.2	4.6	0.70-0.40 to +0.20

Unit:mm

Voltage (Code)		6.3V (0J)			10V (1A)			16V (1C)		
Cap.( $\mu$ F)	Code	Case Size	tan $\delta$	Ripple Current	Case Size	tan $\delta$	Ripple Current	Case Size	tan $\delta$	Ripple Current
10	106							4x5.4	0.16	28
22	226	4x5.4	0.30	29	4x5.4	0.30	28	4x5.4	0.26	28
33	336	4x5.4	0.35	29	4x5.4	0.30	29	5x5.4	0.26	35
47	476	4x5.4	0.35	36	5x5.4	0.30	43	5x5.4	0.26	39
100	107	5x5.4	0.35	47	6.3x5.4	0.30	71	6.3x5.4	0.26	70
150	157							6.3x7.7	0.20	105
220	227	6.3x5.4	0.35	74	6.3x7.7	0.26	105	8x10.2	0.20	150
330	337	6.3x7.7	0.35	105	8x10.2	0.26	196	8x10.2	0.20	170
470	477	8x10.2	0.35	300	8x10.2	0.26	200	8x10.2	0.20	340
680	687							10x10.2	0.20	380
1000	108	8x10.2	0.35	300	10x10.2	0.26	400			
1500	158	10x10.2	0.35	480						

Maximum Allowable Ripple Current (mA<sub>rms</sub>) at 105°C 120Hz  
tan  $\delta$  at 20°C 120HzCase Size  $\Phi$ DxL(mm)

Voltage (Code)		25V (1E)			35V (1V)			50V (1H)		
Cap.( $\mu$ F)	Code	Case Size	tan $\delta$	Ripple Current	Case Size	tan $\delta$	Ripple Current	Case Size	tan $\delta$	Ripple Current
0.1	104							4x5.4	0.12	1
0.22	224							4x5.4	0.12	2
0.33	334							4x5.4	0.12	3
0.47	474							4x5.4	0.12	5
1	105							4x5.4	0.12	10
2.2	225							4x5.4	0.12	16
3.3	335							4x5.4	0.12	16
4.7	475	4x5.4	0.14	22	4x5.4	0.12	22	5x5.4	0.12	23
10	106	4x5.4	0.20	22	5x5.4	0.12	30	6.3x5.4	0.12	35
22	226	5x5.4	0.20	35	6.3x5.4	0.12	60			
33	336	6.3x5.4	0.14	65	6.3x5.4	0.16	65	6.3x7.7	0.12	70
47	476	6.3x5.4	0.20	70	6.3x7.7	0.14	84			
100	107	6.3x7.7	0.16	91	8x10.2	0.14	120	8x10.2	0.12	110
220	227	8x10.2	0.16	160	8x10.2	0.14	170	10x10.2	0.12	150
330	337	8x10.2	0.16	180	10x10.2	0.14	250			
470	477	10x10.2	0.16	360						

Maximum Allowable Ripple Current (mA<sub>rms</sub>) at 105°C 120Hz  
tan  $\delta$  at 20°C 120HzCase Size  $\Phi$ DxL(mm)

Voltage (Code)		63V (1J)			100V (2A)					
Cap.( $\mu$ F)	Code	Case Size	tan $\delta$	Ripple Current	Case Size	tan $\delta$	Ripple Current			
3.3	335									
4.7	475				8x10.2	0.18	50			
10	106				8x10.2	0.18	55			
22	226	8x10.2	0.18	30	8x10.2	0.18	55			
33	336	8x10.2	0.18	36	10x10.2	0.18	65			
47	476	10x10.2	0.18	50	10x10.2	0.18	65			

Maximum Allowable Ripple Current (mA<sub>rms</sub>) at 105°C 120Hz  
tan  $\delta$  at 20°C 120HzCase Size  $\Phi$ DxL(mm)※ Other  $\mu$ F, capacitance, Dimension are also available upon request.