

CKL series

- 105°C 5000 hours Long Life.
- Applicable to SMT process.
- RoHS Compliance.
- 105°C 5000hour長壽命產品。
- 適用於SMT製程。



SPECIFICATIONS

Items 項目	Characteristics 特性							
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)							
Operating Temperature Range 適用溫度範圍	-40 ~ +105°C							
Rated Voltage Range 額定電壓範圍	6.3 ~ 50VDC							
Capacitance Range 靜電容量範圍	22 ~ 1000μF							
Leakage Current 洩漏電流	I ≤ 0.01CV or 3 (μA) , which is greater. (After 2 minutes application of DC rated voltage, at 20°C)							
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C							
	Rated Voltage(V)	6.3	10	16	25	35	50	
	tan δ(Max)	0.32	0.28	0.22	0.16	0.13	0.12	
Low Temperature Stability 低溫特性	Measurement Frequency: 120Hz.							
	Rated Voltage(V)	6.3	10	16	25	35	50	
	Impedance Ratio(Max) 阻抗比率(最大值)	Z(-25°C)/Z(20°C)	4	3	2	2	2	2
	Z(-40°C)/Z(20°C)	10	7	5	3	3	3	
Load Life 負荷壽命	5000hours,with application of rated voltage at 105°C							
	Capacitance Change	Within ± 30% of Initial Value						
	tan δ	300% or less of Initial Specified Value						
	Leakage Current	Initial Specified Value or less						
Shelf Life 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.							
	Capacitance Change	Within ± 30% of Initial Value						
	tan δ	300% or less of Initial Specified Value						
	Leakage Current	Initial Specified Value or less						
Resistance to Soldering Heat 焊錫耐熱性	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature they meet the characteristics requirements listed at right.				Capacitance Change	Within ± 10% of Initial Value		
					tan δ	Initial Specified Value		
					Leakage Current	Initial Specified Value or less		
Standards 參照標準	JIS C 5101-4-1 (IEC 60384)							

Frequency Coefficient of Permissible Ripple Current

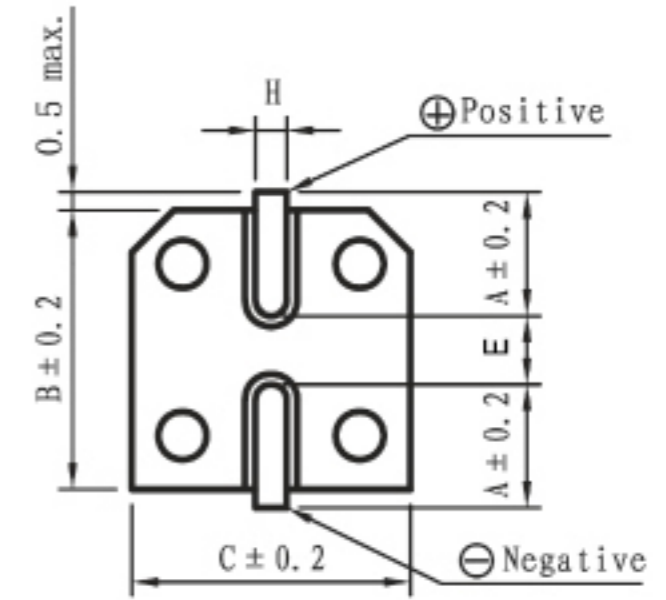
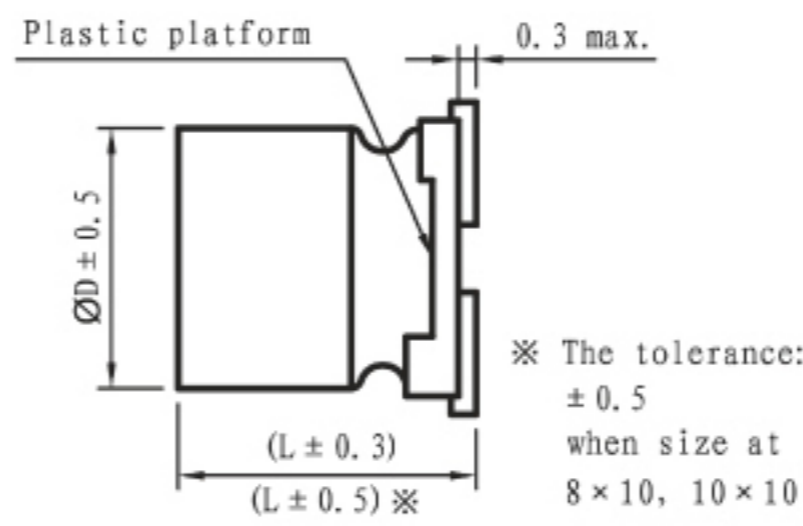
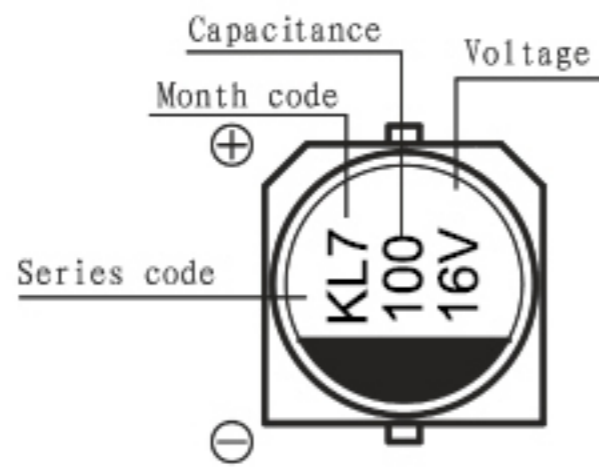
Frequency (Hz)	100 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F
Capacitance (μF)				
4.7 ~ 33	1.00	1.20	1.30	1.45
>33	1.00	1.10	1.20	1.30

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use , the rms ripple current has to be reduced.

CKL series

DIMENSIONS(mm)

Chip Type



(mm)

ϕ D×L	8x10	10x10
A	2.9	3.2
B	8.3	10.3
C	8.3	10.3
E	3.2	4.5
L	10	10
H	0.8~1.1	0.8~1.1

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 120Hz .

Cap (μF)	V	6.3		10		16		25		35		50	
		Item	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L	R.C.	D x L
22													
33												8x10	80
47										8x10	92	8x10	95
100								8x10	116	10x10	150	10x10	160
220				8x10	140	10x10	216	10x10	240	10x10	280		
330		8x10	160	10x10	240	10x10	300	10x10	375				
470		10x10	260	10x10	280	10x10	320						
1000		10x10	340										