

CLL series

- Low impedance, 105°C 7000~10000 hours Long Life.
- Applicable to SMT process.
- RoHS Compliance.
- 105°C 低阻抗、7000~10000hours 長壽命產品。
- 適用於SMT制程。



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	-25°C ~ + 105°C						
Rated Voltage Range 額定電壓範圍	6.3~50VDC						
Capacitance Range 靜電容量範圍	10~1000μF						
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	0.26	0.16	0.14	0.14
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency:120Hz						
	Rated Voltage(V)	6.3	10	16	25	35	50
	Z(-25°C)/Z(20°C)	4	3	2	2	2	2
Load Life 負荷壽命	Φ≤6.3 : 7000hours,Φ≥8 : 10000 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 1000hours 105°C without voltage applied. Before the measurement. The Capacitance 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 hott plate maintained at 250°C for 30seconds. 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) Capacitance (μ F)	120 $\leq$ F < 1K	1K $\leq$ F < 10K	10K $\leq$ F < 100K	100K $\leq$ F
$C \leq 22$	0.50	0.80	0.90	1.00
$22 < C \leq 150$	0.65	0.85	0.92	1.00
$C > 150$	0.70	0.85	0.95	1.00

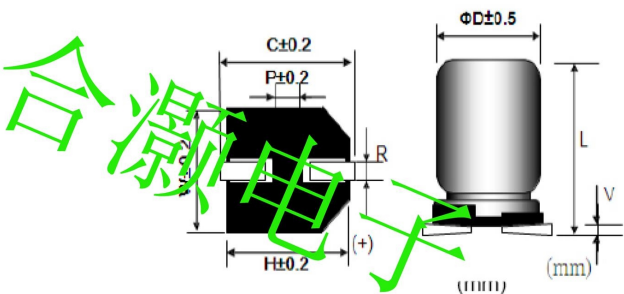
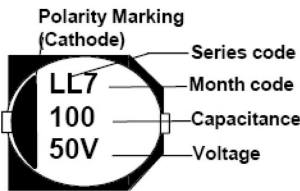
The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. when long life performance is required in actual use. The rms ripple current has to be reduced.

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DIMENSIONS(mm)

Chip Type

Fig.1 ΦD=6.3~10mm



Size	ØD	L	W	H	C	R	P	Vmax
4×7	4.0	7.0±0.3	4.3	4.3	5.1	0.5~0.8	1.0	0.3
5×7	5.0	7.0±0.3	5.3	5.3	5.9	0.5~0.8	1.4	0.3
6.3×7	6.3	7.0±0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
6.3×8.4	6.3	8.4±0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
8×10	8.0	10±0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10×10	10.0	10±0.5	10.3	10.3	11.0	0.7~1.3	4.5	0.3

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 100KHz, IMP(Ω max) at 20°C 100KHz.

Cap (μF)	V	6.3			10			16			25			35			50		
	Item	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP	D x L	R.C.	IMP
10								4×7.0	27	4.00				5×7.0	95	2.20			
								5×7.0	95	2.20	5×7.0	95	2.20	5×7.0	95	2.20	6.3×8.4	100	1.80
22											6.3×7.0	140	1.10	6.3×8.4	230	1.00	8×10	350	0.53
33					5×7.0	95	2.20	6.3×7.0	140	1.10	6.3×7.0	140	1.10	6.3×8.4	230	1.00	8×10	350	0.53
47		5×7.0	95	2.20				6.3×7.0	140	1.10	6.3×8.4	230	1.00	8×10	600	0.22	10×10	670	0.35
100		6.3×7.0	140	1.10				6.3×8.4	230	1.00	8×10	600	0.22						
150					6.3×7.0	140	1.10	6.3×8.4	230	1.00	8×10	600	0.22	10×10	850	0.16			
220		6.3×8.4	230	1.00				8×10	600	0.220	10×10	850	0.16	10×10	850	0.16			
330		6.3×8.4	230	1.00				10×10	850	0.160									
470		8×10	600	0.22															
1000		10×10	850	0.16															

合源电子