CLL series

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

SPECIFICATIONS

Items 項 目	Characteristics 特 性						
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20℃)						
Operating Temperature Range 適用溫度範圍	–25℃ ~ +105℃						
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℃)						
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency:120Hz. Temperature: 20℃						
	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℃)／Z(20℃)	4	3	2	2	2	2
Load Life 負荷壽命	ΦE6.3：7000hours,ΦD8：10000 with application of rated voltage at 105℃						
	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℃ after exposing them for 1000hours 105℃ 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℃ 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 (μF)	120 ≦ F < 1K	1K ≦ F < 10K	10K ≦ F < 100K	100K ≦ F
C≦ 22	0.50	0.80	0.90	1.00
22 < C≦ 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℃ rise. when long life performance is required in actual use. The rms ripple current has to be reduced.

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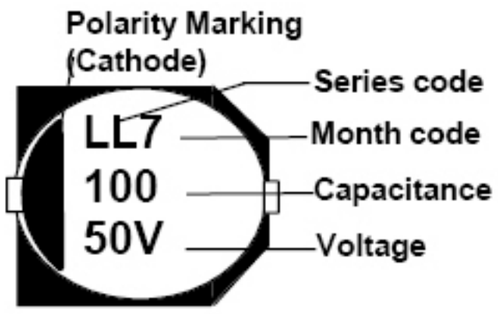
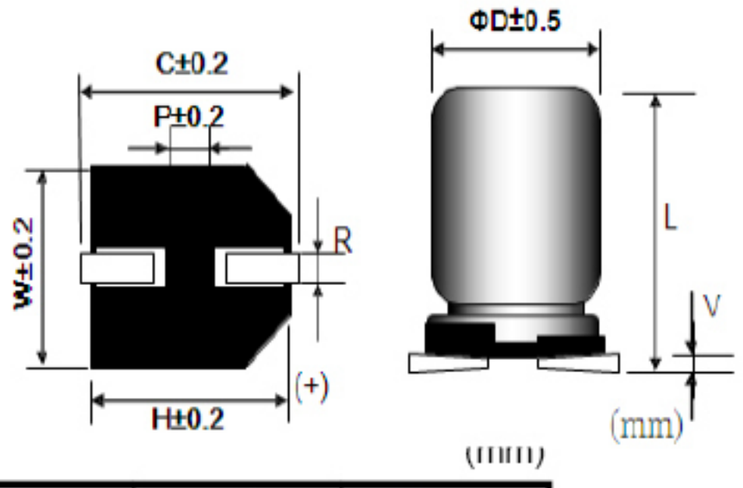
DIMENSIONS(mm)

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℃ 100KHz, IMP(Ω max) at 20℃ 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								4x7.0	27	4.00				5x7.0	95	2.20			
								5x7.0	95	2.20	5x7.0	95	2.20	5x7.0	95	2.20	6.3x8.4	100	1.80
22											6.3x7.0	140	1.10	6.3x8.4	230	1.00	8x10	350	0.53
33					5x7.0	95	2.20	6.3x7.0	140	1.10	6.3x7.0	140	1.10	6.3x8.4	230	1.00	8x10	350	0.53
47		5x7.0	95	2.20				6.3x7.0	140	1.10	6.3x8.4	230	1.00	8x10	600	0.22	10x10	670	0.35
100		6.3x7.0	140	1.10				6.3x8.4	230	1.00	8x10	600	0.22						
150					6.3x7.0	140	1.10	6.3x8.4	230	1.00	8x10	600	0.22	10x10	850	0.16			
220		6.3x8.4	230	1.00				8x10	600	0.220	10x10	850	0.16	10x10	850	0.16			
330		6.3x8.4	230	1.00				10x10	850	0.160									
470		8x10	600	0.22															
1000		10x10	850	0.16															