

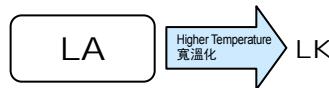
## LA Series

## LOW LEAKAGE CURRENT

## 低漏電流品



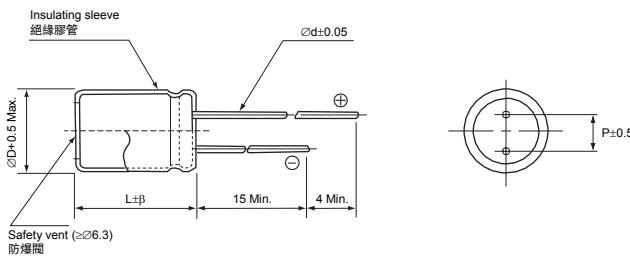
- Standard low leakage current series  
低漏電流標準型系列
- Suitable for high gain audio coupling applications  
適用於高增益音頻耦合器材
- Stable leakage current characteristics for a long period  
使漏電流特性處於長週期穩定
- Load life of 2000 hours at 85°C  
在 85°C 環境中負荷壽命 2000 小時
- Comply with the RoHS & REACH  
符合 RoHS 與 REACH



## □ SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性																						
Operation Temperature Range 使用溫度範圍	-40 ~ +85°C																						
Voltage Range 額定工作電壓範圍	10 ~ 100V																						
Capacitance Range 靜電容量範圍	1 ~ 4700μF																						
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C																						
Leakage Current 漏電流	Leakage current ≤ 0.002CV or 0.4μA, whichever is greater (after 2 minutes application of rated voltage at 20°C) 漏電流 ≤ 0.002CV 或 0.4μA, 取較大值 (在 20°C 環境中施加額定工作電壓 2 分鐘後) C: Nominal capacitance (μF) 標稱靜電容量, V: Rated voltage (V) 額定電壓																						
Dissipation Factor (tan δ) 損耗角正切	When nominal capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value with increase of every 1000μF. 當標稱靜電容量大於 1000μF, 其標稱靜電容量每增加 1000μF, 損耗角正切增加 0.02. Measurement frequency 測試頻率: 120Hz, Temperature 溫度: 20°C <table border="1" style="width: 100%;"><tr> <td>Rated Voltage (V) 額定工作電壓</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>tan δ (max.) 最大損耗角正切</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr></table>							Rated Voltage (V) 額定工作電壓	10	16	25	35	50	63	100	tan δ (max.) 最大損耗角正切	0.20	0.16	0.14	0.12	0.10	0.09	0.08
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Stability at Low Temperature 低溫特性	Measurement frequency 測試頻率: 120Hz <table border="1" style="width: 100%;"><tr> <td>Rated Voltage (V) 額定工作電壓</td> <td>10, 25</td> <td>35</td> <td>50 ~ 100</td> </tr> <tr> <td>Impedance Ratio <math>Z(-25^\circ\text{C}) / Z(20^\circ\text{C})</math> 阻抗比</td> <td>4</td> <td>2</td> <td>2</td> </tr> <tr> <td><math>Z(-40^\circ\text{C}) / Z(20^\circ\text{C})</math></td> <td>8</td> <td>4</td> <td>3</td> </tr> </table>							Rated Voltage (V) 額定工作電壓	10, 25	35	50 ~ 100	Impedance Ratio $Z(-25^\circ\text{C}) / Z(20^\circ\text{C})$ 阻抗比	4	2	2	$Z(-40^\circ\text{C}) / Z(20^\circ\text{C})$	8	4	3				
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Load Life 高溫負荷特性	After 2000 hours application of the rated voltage at 85°C, they meet the characteristics listed below. 在 85°C 環境中施加額定工作電壓 2000 小時後, 電容器的特性符合下表的要求。 <table border="1" style="width: 100%;"><tr> <td>Capacitance Change 靜電容量變化率</td> <td>Within ±20% of initial measured value 初始值的±20%以內</td> </tr> <tr> <td>Dissipation Factor 損耗角正切</td> <td>≤200% of initial specified value 不大於規範值的 200%</td> </tr> <tr> <td>Leakage Current 漏電流</td> <td>≤initial specified value 不大於規範值</td> </tr> </table>							Capacitance Change 靜電容量變化率	Within ±20% of initial measured value 初始值的±20%以內	Dissipation Factor 損耗角正切	≤200% of initial specified value 不大於規範值的 200%	Leakage Current 漏電流	≤initial specified value 不大於規範值										
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Leakage Current 漏電流	≤initial specified value 不大於規範值																						
Shelf Life 高溫貯存特性	After leaving capacitors under no load at 85°C for 1000 hours, they meet the specified value for load life characteristics listed above. 在 85°C 環境中無負荷放置 1000 小時後, 電容器的特性符合高溫負荷特性中所列的規定值。																						
Marking 標識	Printed with black colour on orange sleeve (PVC) or printed with white colour on green sleeve (PET). 桔紅色膠管黑字印刷 (PVC) 或綠色膠管白字印刷 (PET)。																						

## □ DRAWING 外形圖 (Unit: mm)



ØD	5	6.3	8 (L≤11.5)	8 (L≥16)	10	13	16
P	.0	2.5	3.5		5.0		7.5
Ød	0.5			0.6			0.8
β	1.5						2.0

**Note:** All design and specifications are for reference only and is subject to change without prior notice. If any doubt about safety for your application, please contact us immediately for technical assistance before purchase.

注：以上所提供的設計及特性參數僅供參考，任何修改不作預先通知。如果在使用上有疑問，請在採購前與我們聯繫，以便提供技術上的協助。

CAT.2019/V4

## LA Series

## □ DIMENSIONS &amp; MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

WV Code μF	10		16		25		35		50		63		100		
	1A	1C	1E				1V		1H		1J		2A		
1	010										5 x 11	22	5 x 11	18	
1.5	1R5										5 x 11	25	5 x 11	22	
2.2	2R2								5 x 11	28	5 x 11	30	5 x 11	26	
3.3	3R3								5 x 11	35	5 x 11	37	5 x 11	32	
4.7	4R7								5 x 11	42	5 x 11	44	5 x 11	38	
6.8	6R8						5 x 11	46	5 x 11	50	5 x 11	53	5 x 11	53	
10	100				5 x 11	55	5 x 11	55	5 x 1	70	5 x 11	73	6.3 x 11.5	76	
15	150			5 x 11	61	5 x 11	68	5 x 11	68	5 x 11	85	5 x 11	106	6.3 x 11.5	93
22	220	5 x 11	69	5 x 11	73	5 x 11	82	5 x 11	94	5 x 11	122	6.3 x 11.5	129	6.3 x 11.5	130
33	330	5 x 11	84	5 x 11	90	5 x 11	116	5 x 11	116	6.3 x 11.5	149	6.3 x 11.5	183	8 x 11.5	175
47	470	5 x 11	101	5 x 11	110	5 x 11	115	6.3 x 11.5	145	6.3 x 11.5	150	8 x 11.5	190	10 x 12	227
68	680	5 x 11	120	5 x 11	138	5 x 11	160	6.3 x 11.5	203	8 x 11.5	210	8 x 11.5	270	10 x 16	313
100	101	5 x 11	145	5 x 11 (6.3 x 11.5)	145 (180)	6.3 x 11.5	190	8 x 11.5	240	8 x 11.5	255	10 x 12	320	10 x 20	380
150	151	5 x 11	169	6.3 x 11.5	240	8 x 11.5	270	8 x 11.5	340	10 x 12	360	10 x 16	450	13 x 21	508
220	221	6.3 x 11.5	250	6.3 x 11.5	300	8 x 11.5	320	10 x 12	420	10 x 16	490	10 x 20	565	13 x 25	699
330	331	6.3 x 11.5	300	8 x 11.5	370	8 x 11.5	470	10 x 12	570	10 x 20	650	13 x 21	765	16 x 25	983
470	471	8 x 11.5	415	8 x 11.5	510	10 x 12	620	10 x 20	740	13 x 21	860	13 x 25	990	16 x 31	1320
680	681	8 x 11.5	580	10 x 16	715	10 x 16	860	10 x 20	1050	13 x 25	1200	16 x 25	1380		
1000	102	10 x 12	790	10 x 20	910	10 x 20	1090	13 x 21	1300	16 x 25	1530				
1500	152	10 x 20	1100	10 x 20	1275	13 x 25	1530	16 x 25	1820						
2200	222	13 x 21	1240	13 x 25	1420	16 x 25	1660								
3300	332	13 x 21	1590	13 x 25	1840										
4700	472	13 x 25	1980												

•Case size ØD×L(mm), ripple current (mA rms) at 85°C, 120Hz   •尺寸ØD×L(mm), 紋波電流(mA rms)於 85°C, 120Hz

- Please refer to page 19 "Taping Specifications" & page 21 "Lead Forming & Cutting" about the taped or formed product spec. 編帶與引線成型標準請查閱第 19 頁 “編帶標準” 及第 21 頁 “引線成型與剪腳”。
- Please refer to page 20 "Packaging Specifications" for the minimum package quantity. 最小包裝數量請查閱第 20 頁 “包裝標準”。
- Please refer to page 16 for the Part Number System. 產品編碼規則請查閱第 16 頁。

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