

PL Series

HIGH RIPPLE CURRENT, HIGH RELIABILITY

高紋波電流，高可靠品

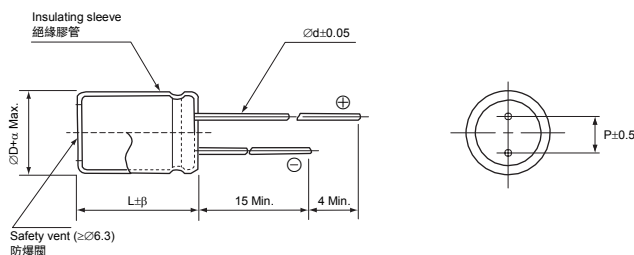


- High ripple current
高紋波電流特性
- High reliability withstanding 5000 hours load life at 105°C
高可靠性，在 105°C 環境中負荷壽命 5000 小時
- Suitable for SMPS and adaptor
適用於開關式電源及變壓器
- Comply with the RoHS & REACH
符合 RoHS 與 REACH

□ SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性		
Operation Temperature Range 使用溫度範圍	-40 ~ +105°C		-25 ~ +105°C
Voltage Range 額定工作電壓範圍	400V		450V
Capacitance Range 靜電容量範圍	33 ~ 150µF		33 ~ 150µF
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C		
Leakage Current 漏電流	Leakage current ≤0.02CV + 15µA (after 5 minutes application of rated voltage at 20°C) 漏電流 ≤0.02CV + 15µA (在 20°C 環境中施加額定工作電壓 5 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	Measurement frequency 測試頻率: 120Hz, Temperature 溫度: 20°C		
	Rated Voltage (V) 額定工作電壓	400	450
	tan δ (max.) 最大損耗角正切	0.24	0.24
Stability at Low Temperature 低溫特性	Measurement frequency 測試頻率: 120Hz		
	Rated Voltage (V) 額定工作電壓	400	450
	Impedance Ratio 阻抗比	Z(-25°C) / Z(20°C) Z(-40°C) / Z(20°C)	6 6
Load Life 高溫負荷特性	After applying rated voltage and rated ripple current for 5000 hours at 105°C, the capacitors shall meet the characteristics listed below. 在 105°C 環境中施加額定工作電壓及額定紋波電流 5000 小時後，電容器的特性符合下表的要求。		
	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	
Shelf Life 高溫貯存特性	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above. 在 105°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 white colour on black sleeve (PVC) or printed with white colour on green sleeve (PET). 黑色膠管白字印刷 (PVC) 或綠色膠管白字印刷 (PET)。		

□ DRAWING 外形圖 (Unit: mm)



ØD	10	13	16	18
P	5.0		7.5	
Ød	0.6		0.8	
β	2.5			

□ FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT 紋波電流頻率補償係數

Frequency 頻率	60Hz	120Hz	1KHz	10KHz~
Coefficient 係數	400 ~ 450VV			
	0.80	1.00	1.40	1.50

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5~10°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced. 鋁電解電容器在疊加紋波電流後會引起發熱，溫度每上升 5~10°C 壽命會減半。若要保持長壽命性能，請在使用過程中適當降低紋波電流。

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

PL Series

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

WV Parameter 參數 μF		400 (2G)			450 (2W)		
		Case size ØD×L (mm) 尺寸	Ripple current (mA rms) 紋波電流		Case size ØD×L (mm) 尺寸	Ripple current (mA rms) 紋波電流	
			105°C, 120Hz	105°C, 100KHz		105°C, 120Hz	105°C, 100KHz
33	330	10 × 35	320	480	10 × 40 (13 × 30)	350 (350)	525 (525)
39	390	10 × 40 (13 × 30)	380 (380)	570 (570)	10 × 45 (13 × 35) (16 × 25)	390 (400) (370)	585 (600) (555)
47	470	10 × 45 (16 × 25)	425 (400)	638 (600)	10 × 50 (13 × 40) (16 × 31)	445 (425) (455)	668 (683) (683)
56	560	10 × 50 (13 × 35)	490 (475)	735 (713)	13 × 45 (16 × 35)	500 (550)	750 (750)
68	680	13 × 40 (16 × 31)	550 (530)	825 (795)	16 × 40 (18 × 31)	590 (550)	885 (825)
82	820	13 × 45 (16 × 35)	615 (605)	923 (908)	13 × 50 (16 × 45) (18 × 35)	625 (675) (645)	938 (1013) (968)
100	101	13 × 50 (16 × 40) (18 × 31)	690 (740) (625)	1035 (1110) (938)	16 × 50 (18 × 40)	785 (740)	1178 (1110)
120	121	16 × 45 (18 × 35)	795 (730)	1193 (1095)	18 × 45	825	1238
150	151	18 × 45	910	1365	18 × 50	950	1425

- 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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