

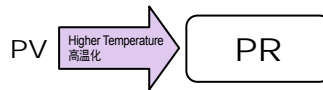
PR Series

RADIAL LEAD TYPE, HIGH RELIABILITY

插件式, 高可靠品



- Operating with wide temperature range -55~+125°C
適用於 -55~+125°C 的寬溫範圍
- High reliability, low ESR, high ripple current
高可靠, 低阻抗, 高紋波電流
- Load life of 3000 hours
負荷壽命 3000 小時
- RoHS & REACH compliant, Halogen-free
符合 RoHS 與 REACH, 無鹵

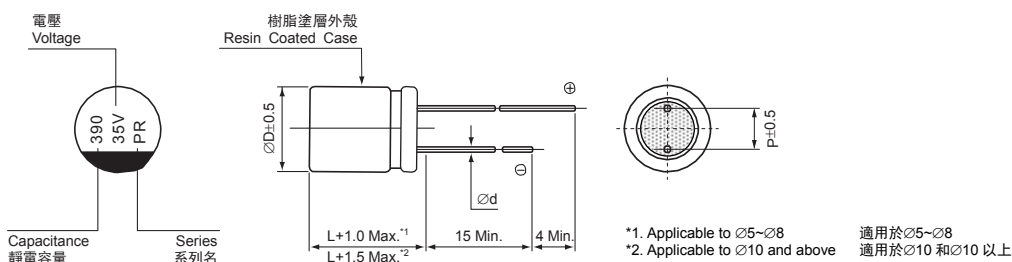


□ SPECIFICATIONS 特性表

Items 項目	Characteristics 主要特性					
Operation Temperature Range 使用溫度範圍	-55 ~ +125°C					
Voltage Range 額定工作電壓範圍	6.3 ~ 50V					
Capacitance Range 靜電容量範圍	22 ~ 1000µF					
Capacitance Tolerance 靜電容量允許偏差	±20% at 120Hz, 20°C					
Leakage Current 漏電流 (*1)	≤Specified value (after 2 minutes application of rated voltage at 20°C). ≤規範值 (在 20°C 環境中施加額定工作電壓 2 分鐘後)。					
Dissipation Factor (tan δ) 損耗角正切	≤Specified value at 120Hz, 20°C. ≤規範值 (在 20°C 120Hz 環境下)。					
ESR 阻抗值 (*2)	≤Specified value at 100KHz, 20°C. ≤規範值 (在 20°C 100KHz 環境下)。					
Stability at Low Temperature 低溫特性	Measurement frequency 測試頻率: 100KHz					
	<table border="1"> <tr> <td>Impedance Ratio 阻抗比 Z1/Z20 (max.)</td> <td>Z(+125°C)/Z(20°C)</td> <td>≤1.25</td> </tr> <tr> <td></td> <td>Z(-55°C)/Z(20°C)</td> <td>≤1.25</td> </tr> </table>	Impedance Ratio 阻抗比 Z1/Z20 (max.)	Z(+125°C)/Z(20°C)	≤1.25		Z(-55°C)/Z(20°C)
Impedance Ratio 阻抗比 Z1/Z20 (max.)	Z(+125°C)/Z(20°C)	≤1.25				
	Z(-55°C)/Z(20°C)	≤1.25				
Damp Heat (Steady State) 穩態濕熱	When the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH, they meet the characteristics listed below. 在 60°C 和相對濕度 90% 環境下施加額定工作電壓 1000 小時並冷卻至 20°C 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 value 為初始值的±20%以內 (*3)				
	Dissipation Factor 損耗角正切	150% or less of initial specified value 不大於規範值的 150%				
	ESR 阻抗值 (*2)	150% or less of initial specified value 不大於規範值的 150%				
	Leakage Current 漏電流	Initial specified value or less 不大於規範值				
Endurance 耐久性	After 3000 hours application of the rated voltage at 125°C, they meet the characteristics listed below. 在 125°C 環境中施加額定工作電壓 3000 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 value 為初始值的±20%以內 (*3)				
	Dissipation Factor 損耗角正切	150% or less of initial specified value 不大於規範值的 150%				
	ESR 阻抗值 (*2)	150% or less of initial specified value 不大於規範值的 150%				
	Leakage Current 漏電流	Initial specified value or less 不大於規範值				
Resistance to Soldering Heat 耐焊接熱特性 (Please refer page 9 for soldering conditions) (焊接條件請查閱第 12 頁)	After reflow soldering and restored at room temperature, they meet the characteristics listed below. 經過回流焊並冷卻至室溫後, 電容器的特性符合下表的要求。					
	Capacitance Change 靜電容量變化率	Within ±10% of initial value 初始值的±10%以內 (*3)				
	Dissipation Factor 損耗角正切	130% or less of initial specified value 不大於規範值的 130%				
	ESR 阻抗值 (*2)	130% or less of initial specified value 不大於規範值的 130%				
	Leakage Current 漏電流	Initial specified value or less 不大於規範值				
Marking 標識	Red print on the case top. 鋁殼頂部紅色字體印刷。					

(*1) If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C. 如未能確定, 在 105°C 環境下連續施加額定工作電壓 120 分鐘後測量漏電流。
 (*2) Should be measured at both of the terminal ends closest to the capacitor body. 測試應為靠近兩個端子的末端。
 (*3) The value before test of examination of resistance to soldering. 焊接測試前的值。

□ DRAWING 外形圖 (Unit: mm)



Dimension table in next page. 尺寸表見下一頁。

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。

PR Series

□ DIMENSIONS 尺寸表 (Unit: mm)

∅D × L	5 × 8	8 × 8	8 × 9	8 × 12	10 × 13
P	2.0	3.5	3.5	3.5	5.0
∅d	0.5	0.6	0.6	0.6	0.6
L	8.0	9.0	9.0	12.0	13.0

□ DIMENSIONS & STANDARD RATINGS 規格尺寸及標準參數

WV (V)		6.3 (0J)						16 (1C)					
Cap. 容量 (μF)	Parameter 參數	Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流		Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
100	101	5 × 8	0.12	126	18	1900	730	5 × 8	0.12	320	13	2000	770
150	151							8 × 9	0.12	480	26	2100	810
220	221							8 × 12	0.12	704	25	2400	930
330	331	5 × 8	0.12	415	14	2300	880	8 × 8	0.12	1056	13	4700	1570
390	391							10 × 13	0.12	1248	23	2900	1130
1000	102							10 × 13	0.12	3200	12	4500	1730

WV (V)		20 (1D)						25 (1E)					
Cap. 容量 (μF)	Parameter 參數	Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流		Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
82	820							8 × 9	0.12	410	28	2000	780
120	121	8 × 9	0.12	480	27	2000	800	8 × 12	0.12	600	27	2300	890
150	151	8 × 12	0.12	600	26	2300	910						
180	181							10 × 13	0.12	900	25	2800	1080
270	271	10 × 13	0.12	1080	24	2800	1110						

WV (V)		35 (1V)						50 (1H)					
Cap. 容量 (μF)	Parameter 參數	Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流		Case size ∅D×L (mm) 尺寸	Dissipation factor (tan δ) 損耗角正切	Leakage current (μA) 漏電流	ESR (mΩ) max. 20°C, 100KHz 阻抗值	Ripple current (mA rms) 紋波電流	
						≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾					≤105°C ⁽³⁾	105°C≤125°C ⁽³⁾
22	220							8 × 9	0.12	220	35	1800	700
27	270							8 × 12	0.12	270	33	2000	810
39	390	8 × 9	0.12	273	33	1800	720						
47	470							10 × 13	0.12	470	29	2600	1020
56	560	8 × 12	0.12	392	31	2100	830						
100	101	10 × 13	0.12	700	28	2700	1040						

- Please refer to page 21 about the taped or cutting product spec. 編帶與剪腳標準請查閱第 21 頁。
- Please refer to page 18 for the minimum package quantity. 最小包裝數量請查閱第 18 頁。
- Please refer to page 14 for the Part Number System. 產品編碼規則請查閱第 14 頁。

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