

## PS Series

## RADIAL LEAD TYPE, LONG LIFE

## 插件式，長壽命品

- Operating with wide temperature range -55~+105°C  
適用於 -55~+105°C 的寬溫範圍
- Long life assurance  
長壽命
- Load life of 5000 hours  
負荷壽命 5000 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 ~ +105°C                                                                                                                                                                                                             |                                                      |       |
| Voltage Range 額定工作電壓範圍                                                                                      | 2.5 ~ 16V                                                                                                                                                                                                                |                                                      |       |
| Capacitance Range 靜電容量範圍                                                                                    | 100 ~ 1500μF                                                                                                                                                                                                             |                                                      |       |
| 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<br>低溫特性                                                                        | Measurement frequency 測試頻率: 100KHz                                                                                                                                                                                       |                                                      |       |
|                                                                                                             | Impedance Ratio 阻抗比<br>ZT/Z20 (max.)                                                                                                                                                                                     | Z(+105°C)/Z(20°C)                                    | ≤1.25 |
|                                                                                                             |                                                                                                                                                                                                                          | Z(-55°C)/Z(20°C)                                     | ≤1.25 |
| Damp Heat (Steady State)<br>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.<br>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<br>耐久性                                                                                            | After 5000 hours application of the rated voltage at 105°C, they meet the characteristics listed below.<br>在 105°C 環境中施加額定工作電壓 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 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<br>耐焊接熱特性<br>(Please refer page 9 for soldering conditions)<br>(焊接條件請查閱第 12 頁) | After reflow soldering and restored at room temperature, they meet the characteristics listed below.<br>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。                                                                                                                                                                                   |                                                      |       |

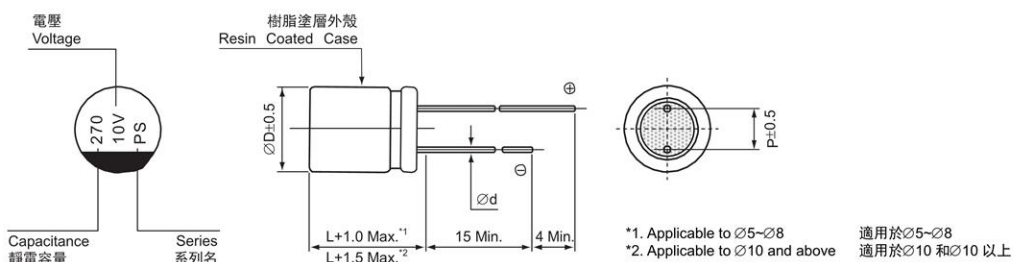
(\*1) If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.

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)



注：以上所提供的设计及特性参数仅供参考，任何修改不作预先通知，如有使用上任何疑问，请在采购前与我们联系，以便提供技术上的协助。

## DIMENSIONS 尺寸表 (Unit: mm)

| ØD × L | 6.3 × 9 | 6.3 × 10.5 | 8 × 7 | 8 × 9 | 8 × 12 | 10 × 13 |
|--------|---------|------------|-------|-------|--------|---------|
| P      | 2.5     | 2.5        | 3.5   | 3.5   | 3.5    | 5.0     |
| Ød     | 0.6     | 0.6        | 0.6   | 0.6   | 0.6    | 0.6     |
| L      | 9.0     | 10.5       | 7.0   | 9.0   | 12.0   | 13.0    |

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

| WV (V)             |                 | 2.5 (0E)                       |                                           |                                   |                                         |                                                        | 4 (0G)                       |                                           |                                   |                                         |                                                        |
|--------------------|-----------------|--------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------------------|------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------------------|
| Cap.<br>容量<br>(µF) | Parameter<br>參數 | Case size<br>ØD×L (mm)<br>尺寸   | Dissipation<br>factor<br>(tan δ)<br>損耗角正切 | Leakage<br>current<br>(µA)<br>漏電流 | ESR (mΩ)<br>max. 20°C,<br>100KHz<br>阻抗值 | Ripple current<br>(mA rms)<br>105°C,<br>100KHz<br>紋波電流 | Case size<br>ØD×L (mm)<br>尺寸 | Dissipation<br>factor<br>(tan δ)<br>損耗角正切 | Leakage<br>current<br>(µA)<br>漏電流 | ESR (mΩ)<br>max. 20°C,<br>100KHz<br>阻抗值 | Ripple current<br>(mA rms)<br>105°C,<br>100KHz<br>紋波電流 |
|                    |                 |                                |                                           |                                   |                                         |                                                        |                              |                                           |                                   |                                         |                                                        |
| 270                | 271             |                                |                                           |                                   |                                         |                                                        | 6.3 × 9                      | 0.08                                      | 216                               | 8                                       | 4800                                                   |
| 330                | 331             | 6.3 × 9                        | 0.08                                      | 165                               | 8                                       | 4800                                                   |                              |                                           |                                   |                                         |                                                        |
| 560                | 561             |                                |                                           |                                   |                                         |                                                        | 8 × 7<br>(8 × 9)             | 0.08<br>(0.08)                            | 448<br>(448)                      | 15<br>(7)                               | 3900<br>(5200)                                         |
| 680                | 681             | 8 × 7                          | 0.08                                      | 340                               | 15                                      | 3900                                                   | 8 × 12                       | 0.08                                      | 544                               | 7                                       | 5800                                                   |
| 820                | 821             | 6.3 × 9<br>(8 × 9)<br>(8 × 12) | 0.08<br>(0.08)<br>(0.08)                  | 410<br>(410)<br>(410)             | 8<br>(7)<br>(7)                         | 4800<br>(5200)<br>(5800)                               |                              |                                           |                                   |                                         |                                                        |
| 1200               | 122             |                                |                                           |                                   |                                         |                                                        | 10 × 13                      | 0.08                                      | 960                               | 8                                       | 5500                                                   |
| 1500               | 152             | 10 × 13                        | 0.08                                      | 750                               | 8                                       | 5500                                                   |                              |                                           |                                   |                                         |                                                        |

| WV (V)             |                 | 6.3 (0J)                     |                                           |                                   |                                         |                                                        | 10 (1A)                      |                                           |                                   |                                         |                                                        |
|--------------------|-----------------|------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------------------|------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------------------|
| Cap.<br>容量<br>(µF) | Parameter<br>參數 | Case size<br>ØD×L (mm)<br>尺寸 | Dissipation<br>factor<br>(tan δ)<br>損耗角正切 | Leakage<br>current<br>(µA)<br>漏電流 | ESR (mΩ)<br>max. 20°C,<br>100KHz<br>阻抗值 | Ripple current<br>(mA rms)<br>105°C,<br>100KHz<br>紋波電流 | Case size<br>ØD×L (mm)<br>尺寸 | Dissipation<br>factor<br>(tan δ)<br>損耗角正切 | Leakage<br>current<br>(µA)<br>漏電流 | ESR (mΩ)<br>max. 20°C,<br>100KHz<br>阻抗值 | Ripple current<br>(mA rms)<br>105°C,<br>100KHz<br>紋波電流 |
|                    |                 |                              |                                           |                                   |                                         |                                                        |                              |                                           |                                   |                                         |                                                        |
| 150                | 151             |                              |                                           |                                   |                                         |                                                        | 6.3 × 10.5                   | 0.08                                      | 300                               | 20                                      | 3000                                                   |
| 270                | 271             |                              |                                           |                                   |                                         |                                                        | 8 × 12                       | 0.08                                      | 540                               | 8                                       | 4900                                                   |
| 330                | 331             | 6.3 × 10.5                   | 0.08                                      | 416                               | 20                                      | 3000                                                   |                              |                                           |                                   |                                         |                                                        |
| 390                | 391             | 8 × 7                        | 0.08                                      | 491                               | 15                                      | 3900                                                   |                              |                                           |                                   |                                         |                                                        |
| 470                | 471             | 8 × 12                       | 0.08                                      | 592                               | 7                                       | 5500                                                   | 10 × 13                      | 0.08                                      | 940                               | 8                                       | 5500                                                   |
| 560                | 561             | 6.3 × 9<br>(8 × 9)           | 0.08<br>(0.08)                            | 706<br>(706)                      | 9<br>(8)                                | 4300<br>(5000)                                         |                              |                                           |                                   |                                         |                                                        |
| 820                | 821             | 10 × 13                      | 0.08                                      | 1033                              | 8                                       | 5500                                                   |                              |                                           |                                   |                                         |                                                        |

| WV (V)             |                 | 16 (1C)                      |                                           |                                   |                                         |                                                        |
|--------------------|-----------------|------------------------------|-------------------------------------------|-----------------------------------|-----------------------------------------|--------------------------------------------------------|
| Cap.<br>容量<br>(µF) | Parameter<br>參數 | Case size<br>ØD×L (mm)<br>尺寸 | Dissipation<br>factor<br>(tan δ)<br>損耗角正切 | Leakage<br>current<br>(µA)<br>漏電流 | ESR (mΩ)<br>max. 20°C,<br>100KHz<br>阻抗值 | Ripple current<br>(mA rms)<br>105°C,<br>100KHz<br>紋波電流 |
|                    |                 |                              |                                           |                                   |                                         |                                                        |
| 100                | 101             | 6.3 × 10.5                   | 0.08                                      | 320                               | 24                                      | 2800                                                   |
| 270                | 271             | 8 × 12                       | 0.08                                      | 864                               | 9                                       | 4500                                                   |
| 330                | 331             | 10 × 13                      | 0.08                                      | 1056                              | 9                                       | 4700                                                   |
| 470                | 471             | 10 × 13                      | 0.08                                      | 1504                              | 9                                       | 4700                                                   |

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