

PC Series

性能特点 Feature

- Feature: LOW ESR, Surface mounting, Reduced height, Wide temperature range
- Suitable for DC-DC converters, voltage regulators and decoupling applications
- Rate voltage: 2~35Vdc.
- Endurance: 2000hrs at 105°C
- RoHS Compliant



技术性能 Specifications

| Item                       | Conditions                                                                                                                                                                                                | Characteristics                                                                                                                               |                                                                                                                        |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Category Temperature Range |                                                                                                                                                                                                           | -55 to +105°C                                                                                                                                 |                                                                                                                        |
| Rated Voltage Range        |                                                                                                                                                                                                           | 2 to 35 Vdc                                                                                                                                   |                                                                                                                        |
| Capacitance Tolerance      | at 20°C,120Hz                                                                                                                                                                                             | ±20%(M); Y: +10~-35%                                                                                                                          |                                                                                                                        |
| Leakage Current            | at 20°C after 2 minutes                                                                                                                                                                                   | I ≤ 0.1CV(2 V.DC to 6.3 V.DC)<br>I ≤ 0.3CV(10 V.DC to 35 V.DC)<br>I : Leakage Current(μA), C : Rated Capacitance(μF),<br>V : Rated Voltage(V) |                                                                                                                        |
| Surge Voltage              | 15 to +35°C                                                                                                                                                                                               | Rated voltage x 1.25 (2 V.DC to 16 V.DC)<br>Rated voltage x 1.15 (25 V.DC to 35 V.DC)                                                         |                                                                                                                        |
| Dissipation Factor (tanδ)  | at 20°C, 120Hz                                                                                                                                                                                            | 0.06 max.                                                                                                                                     |                                                                                                                        |
| Endurance                  | 105°C, rated voltage applied,2000 hrs.                                                                                                                                                                    | Appearance                                                                                                                                    | No significant damage                                                                                                  |
|                            |                                                                                                                                                                                                           | Capacitance Change                                                                                                                            | ±20% of the initial value                                                                                              |
|                            |                                                                                                                                                                                                           | Dissipation Factor                                                                                                                            | ☒200% of the initial specified value                                                                                   |
|                            |                                                                                                                                                                                                           | Leakage Current                                                                                                                               | 2 V.DC to 6.3 V.DC<br>☒300% of the initial specified value<br>10 V.DC to 35 V.DC<br>☒within the initial limit          |
| Damp Heat, Steady State    | 60°C, 90 to 95%RH, 500 hrs.                                                                                                                                                                               | Appearance                                                                                                                                    | No significant damage                                                                                                  |
|                            |                                                                                                                                                                                                           | Capacitance Change                                                                                                                            | (2 V.DC to 2.5 V.DC) +70%,-20% of the initial value<br>(10 V.DC to 35 V.DC) +60%,-20% of the initial value             |
|                            |                                                                                                                                                                                                           | Dissipation Factor                                                                                                                            | ☒200% of the initial specified value                                                                                   |
|                            |                                                                                                                                                                                                           | Leakage Current                                                                                                                               | 2 V.DC to 6.3 V.DC<br>within the initial specified value<br>10 V.DC to 35 V.DC<br>☒300% of the initial specified value |
| Surge Voltage              | The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages, at 15°C to 35°C for 30 seconds through a protective resistor(R=1KΩ)and discharge for 5min 30 seconds. | Appearance                                                                                                                                    | No significant damage                                                                                                  |
|                            |                                                                                                                                                                                                           | Capacitance Change                                                                                                                            | ±10% of the initial value                                                                                              |
|                            |                                                                                                                                                                                                           | Dissipation Factor                                                                                                                            | within the initial specified value                                                                                     |
|                            |                                                                                                                                                                                                           | Leakage Current                                                                                                                               | within the initial specified value                                                                                     |

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标准评级 Standard Ratings

| WV(VDC) | Cap (μF)@120Hz | tanδMax. @120Hz | Leakage Current Max.(μA) | ESR Max. (mΩ) @100kHz | Ripple Current (mArms) @100kHz |
|---------|----------------|-----------------|--------------------------|-----------------------|--------------------------------|
| 2       | 220            | 0.06            | 44.0                     | 9.0                   | 6300                           |
|         | 220            | 0.06            | 44.0                     | 9.0                   | 6300                           |
|         | 220            | 0.06            | 44.0                     | 6.0                   | 7500                           |
|         | 330            | 0.06            | 66.0                     | 9.0                   | 6300                           |
|         | 330            | 0.06            | 66.0                     | 9.0                   | 6300                           |
|         | 330            | 0.06            | 66.0                     | 6.0                   | 7500                           |
| 2.5     | 220            | 0.06            | 55.0                     | 9.0                   | 6300                           |
|         | 220            | 0.06            | 55.0                     | 9.0                   | 6300                           |
|         | 330            | 0.06            | 82.5                     | 9.0                   | 6300                           |
|         | 330            | 0.06            | 82.5                     | 9.0                   | 6300                           |
|         | 330            | 0.06            | 82.5                     | 6.0                   | 7500                           |
| 16      | 33             | 0.06            | 158.4                    | 40                    | 3200                           |
| 25      | 15             | 0.06            | 112.5                    | 40                    | 3200                           |
|         | 22             | 0.06            | 165.0                    | 40                    | 3200                           |
| 35      | 15             | 0.06            | 157.5                    | 40                    | 3200                           |

\* 支持客户根据需求定制 Support Customer Customization According To Demand

| Temperature Compensation Multipliers for Ripple Current |        |                |                |
|---------------------------------------------------------|--------|----------------|----------------|
|                                                         | ≤ 45°C | 45°C< T ≤ 85°C | 85°C<T ≤ 105°C |
| 2 V.DC to 6.3 V.DC                                      | 1.0    | 0.7            | 0.25           |
| 10 V.DC to 35 V.DC                                      | 1.0    | 0.8            | 0.5            |

产品标识 Product Identification

|         |                           |                         |                          |                   |                                         |
|---------|---------------------------|-------------------------|--------------------------|-------------------|-----------------------------------------|
| PC      | 2R5                       | S                       | 471                      | E04               | ☐                                       |
| Product | Rated Voltage<br>2R5:2.5V | Case Height<br>S: 1.9mm | Capacitance<br>471=470μF | ESR<br>E04: 4.5mΩ | Suffix for special code<br>Y=+10~-35° C |

尺寸和标记 Dimensions And Marking

| Case size | L       | WA      | WB      | H       | P       |
|-----------|---------|---------|---------|---------|---------|
| s         | 7.3±0.3 | 4.3±0.3 | 2.4±0.2 | 1.9±0.3 | 1.3±0.2 |

