

Supercapacitors

PB Series



Description

Cooper Bussmann PowerStor supercapacitors are unique, ultra-high capacitance devices utilizing electrochemical double layer capacitor (EDLC) construction combined with new, high performance materials. This combination of advanced technologies allows Cooper Bussmann to offer a wide variety of capacitor solutions tailored to specific applications that range from a few micro-amps for several days to several amps for milliseconds.

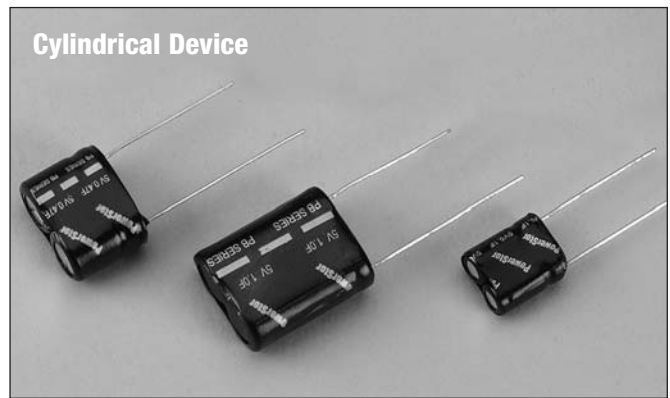
Features & Benefits

- 5.0 Volts
- Low ESR
- High capacitance
- Long cycle life
- Low leakage currents
- UL Recognized



Applications

- Bridge or hold-up power
- Memory backup
- Battery swap out



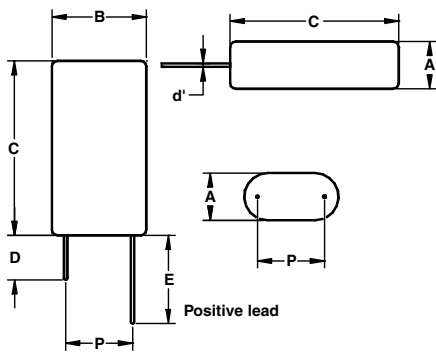
| Specifications | |
|-----------------------------|---------------------|
| Working Voltage | 5.0V |
| Surge Voltage | 6.0V |
| Capacitance | 0.1F to 1.0F |
| Capacitance Tolerance | -20% to +80% (20°C) |
| Operating Temperature Range | -25°C to 70°C |

| Standard Product | | | | | | |
|-------------------------|--------------|--------------|--|--|-------------------------|----------------------------|
| Nominal Capacitance (F) | Part Numbers | | Maximum ESR (Ω) (Equivalent Series Resistor) Measured @ 100Hz | Nominal Leakage Current (μ A) After 72 Hours @ 20°C | Nominal Dimensions (mm) | Typical Mass (grams/piece) |
| | Vertical | Horizontal | | | | |
| 0.1 | PB-5ROV104-R | PB-5ROH104-R | 4.0 | 3 | 5.5 x 10.8 x 12.5 | 1.1 |
| 0.47 | PB-5ROV474-R | PB-5ROH474-R | 1.0 | 7 | 8.5 x 16.8 x 14.0 | 2.4 |
| 1.0 | PB-5ROV105-R | PB-5ROH105-R | 0.5 | 12 | 8.5 x 16.8 x 21.5 | 3.5 |

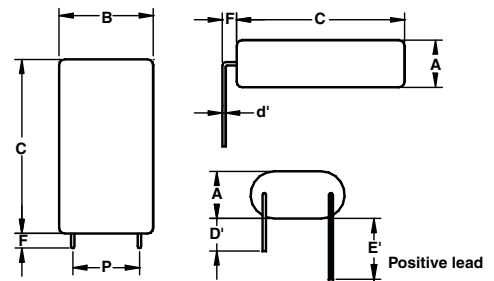
| Performance | | |
|--|--|------------------------------------|
| Parameter | Capacitance Change (% of initial measured value) | ESR (% of initial specified value) |
| Life (1000 hrs @ 70°C @ 5.0Vdc) | ≤ 30 % | ≤ 300 % |
| Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C) | ≤ 30 % | ≤ 300 % |

| Dimensions (mm) | | | | | | | | | | | |
|-------------------|-------------------|----------------|------|------|---------------|----------------|----|----|--------------|-----|------|
| Vertical Part # | Horizontal Part # | A | B | C | d' | D | D' | E | E' | F | P |
| PB-5ROV104-R | PB-5ROH104-R | 6.0 | 11.3 | 13.0 | 0.5 | 20 | 15 | 25 | 20 | 2.0 | 7.3 |
| PB-5ROV474-R | PB-5ROH474-R | 9.0 | 17.3 | 14.5 | 0.5 | 20 | 15 | 25 | 20 | 2.0 | 11.8 |
| PB-5ROV105-R | PB-5ROH105-R | 9.0 | 17.3 | 22.0 | 0.5 | 20 | 15 | 25 | 20 | 2.0 | 11.8 |
| Tolerances | | Maximum | | | ± 0.02 | Minimum | | | ± 0.5 | | |

Note: Longer lead is positive.



Vertical



Horizontal

| Part Numbering System | | | | | | | | | | |
|-----------------------|------------------|---|----------------------------|---|---|--------------------------------|---|------------|---|--|
| P | B | - | 5 | R | 0 | □ | □ | □ | □ | |
| Series Code | Version | | Voltage (V) R = Decimal | | | Configuration | Capacitance (μF) | | | |
| P Series | High Capacitance | | 5R0 = 5.0V | | | V = Vertical H = Horizontal | Value | Multiplier | | |
| | | | | | | | Example: 474 = 47 x 10 ⁴ μF or 0.47F | | | |

Packaging Information

Packaging:

- Standard packaging: Bulk, 100 units per bag.
- Larger bulk packages available on request.

Part Marking

- Manufacturer
- Capacitance (F)
- Max Operating Voltage (V)
- Series Code (or part number)
- Polarity

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