

# 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.

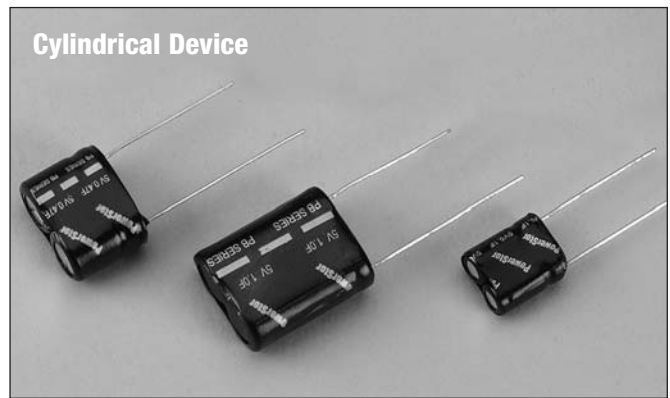
### Features & Benefits

- 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



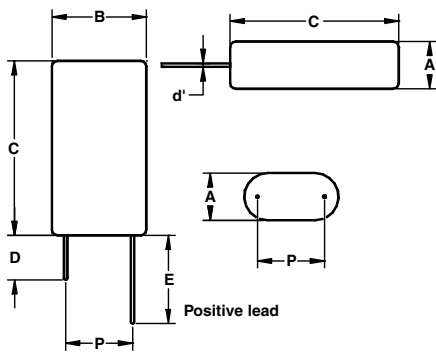
Specifications	
Working Voltage	5.0V
Surge Voltage	6.0V
Capacitance	0.1F to 1.0F
Capacitance Tolerance	-20% to +80% (20°C)
Operating Temperature Range	-25°C to 70°C

Standard Product						
Nominal Capacitance (F)	Part Numbers		Maximum ESR ( $\Omega$ ) (Equivalent Series Resistor) Measured @ 100Hz	Nominal Leakage Current ( $\mu$ 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

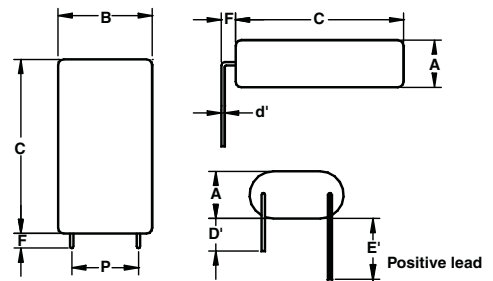
Performance		
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)
Life (1000 hrs @ 70°C @ 5.0Vdc)	≤ 30 %	≤ 300 %
Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C)	≤ 30 %	≤ 300 %

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
<b>Tolerances</b>		<b>Maximum</b>			<b>± 0.02</b>	<b>Minimum</b>			<b>± 0.5</b>		

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 <sup>4</sup> 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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