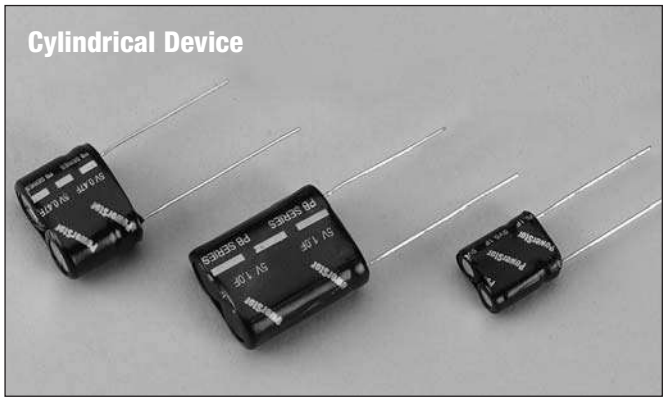
PowerStor®

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

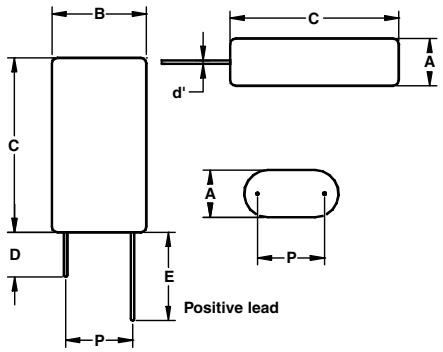
Specifications	
Working Voltage	5.0V
Surge Voltage	6.0V
Capacitance	0.1F to 1.0F
Capacitance Tolerance	-20% to +80% (20°C)
Operating Temperature Range	-25°C to 70°C

Standard Product						
Nominal Capacitance (F)	Part Numbers		Maximum ESR (Ω) (Equivalent Series Resistanc) Measured @ 100Hz	Nominal Leakage Current (μA) After 72 Hours @ 20°C	Nominal Dimensions (mm)	Typical Mass (grams/piece)
	Vertical	Horizontal				
0.1	PB-5R0V104-R	PB-5R0H104-R	4.0	3	5.5 x 10.8 x 12.5	1.1
0.47	PB-5R0V474-R	PB-5R0H474-R	1.0	7	8.5 x 16.8 x 14.0	2.4
1.0	PB-5R0V105-R	PB-5R0H105-R	0.5	12	8.5 x 16.8 x 21.5	3.5

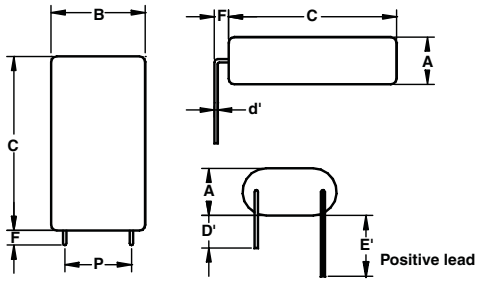
Performance		
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)
Life (1000 hrs @ 70°C @ 5.0Vdc)	≤ 30 %	≤ 300 %
Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C)	≤ 30 %	≤ 300 %

Dimensions (mm)											
Vertical Part #	Horizontal Part #	A	B	C	d'	D	D'	E	E'	F	P
PB-5R0V104-R	PB-5R0H104-R	6.0	11.3	13.0	0.5	20	15	25	20	2.0	7.3
PB-5R0V474-R	PB-5R0H474-R	9.0	17.3	14.5	0.5	20	15	25	20	2.0	11.8
PB-5R0V105-R	PB-5R0H105-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) Value		Multiplier
P Series	High Capacitance		5R0 = 5.0V			V = Vertical H = Horizontal	Example: 474 = 47 x 10^4µF 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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