



## Aerogel Supercapacitors B Series

## Description

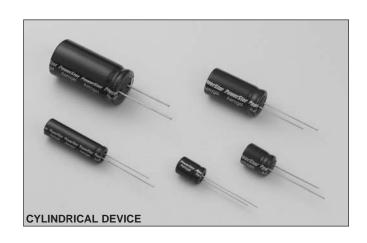
The PowerStor Aerogel Capacitor is a unique, ultra-high capacitance device based on a novel type of carbon foam, known as carbon aerogel. Aerogel capacitors are similar to supercapacitors, ultracapacitors and electrochemical double layer capacitors (EDLCs) with the added benefit of low ESR (Equivalent Series Resistance).

### Features & Benefits

- High specific capacitance
- Very low ESR
- Low leakage currents
- · Long cycle life
- Ultra low ESR also available (A Series)

## **Applications**

- Main power
- · Hybrid battery packs
- Hold-up power
- · Pulse power



SPECIFICATIONS						
Working Voltage 2.5 volts						
Surge Voltage 3.0 volts						
Nominal Capacitance Range	0.22 to 50 F					
Capacitance Tolerance -20% to +80% (20°C)						
Operating Temperature Range	-25°C to 70°C					

STANDARD PRODUCTS						
Nominal	Part Nominal ESR		Nominal Dimensions			
Capacitance	Number	(Equivalent Series Resistance)				
(F)		Measured @ 1kHz ( $\Omega$ )				
0.22	B0510-2R5224	3	Ø = 5 mm; L = 11 mm			
1.0	B0810-2R5105	0.400	Ø = 8 mm; L = 13 mm			
1.5	B1010-2R5155	0.300	$\emptyset$ = 10 mm; L = 12.5 mm			
2.2	B0820-2R5225	0.200	$\emptyset$ = 8 mm; L = 20 mm			
3.3	B1020-2R5335	0.150	$\emptyset$ = 10 mm; L = 20.5 mm			
4.7	B0830-2R5475	0.150	$\emptyset$ = 8 mm; L = 30 mm			
6.8	B1030-2R5685	0.100	Ø = 10 mm; L = 30 mm			
10	B1325-2R5106	0.060	Ø = 13 mm; L = 26 mm			
22	B1635-2R5226	0.040	Ø = 16 mm; L = 35 mm			
33	B1835-2R5336	0.030	Ø = 18 mm; L = 35 mm			
50	B1840-2R5506	0.025	Ø = 18 mm; L = 40 mm			

PERFORMANCE						
Parameter	Capacitance Change	ESR				
	(% of initial measured value)	(% of initial specified value)				
Life (1000 hrs @ 70°C @ 2.5 volts DC)	≤ 30	≤ 300				
Storage - low and high temperature	≤ 30	≤ 300				
(1000 hrs @ -25°C and 70°C)						



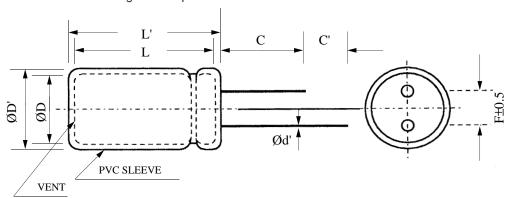




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DIMENSIONS (mm)								
Part Number	D	D'	L	L'	F	d'	С	C'
B0510-2R5224	5.0	5.5	11.5	12.0	2.0	0.50	20.0	5.0
B0810-2R5105	8.0	8.5	13.0	13.5	3.5	0.50	20.0	5.0
B1010-2R5155	10.0	10.5	13.9	14.4	5.0	0.60	20.0	5.0
B0820-2R5225	8.0	8.5	20.5	21.0	3.5	0.50	20.0	5.0
B1020-2R5335	10.0	10.5	21.8	22.3	5.0	0.60	20.0	5.0
B0830-2R5475	8.0	8.5	30.5	31.0	3.5	0.50	20.0	5.0
B1030-2R5685	10.0	10.5	31.0	31.5	5.0	0.60	20.0	5.0
B1325-2R5106	13.0	13.5	27.9	28.4	5.0	0.60	20.0	5.0
B1635-2R5226	16.0	16.5	37.5	38.0	7.5	0.80	20.0	5.0
B1835-2R5336	18.0	18.5	37.5	38.0	7.5	0.80	20.0	5.0
B1840-2R5506	18.0	18.5	41.5	42.0	7.5	0.80	20.0	5.0
	Maximum				± 0.5	± 0.02	Minii	mum

Note: Longer lead is positive



PART NUMBERING SYSTEM								
В			-	2	R	5		
Series	Dimensions (mm)			Voltage (V)		/)	Capacitance	
Code				R	is decim	ıal		
B = High	Diameter	Length					Value	Multiplier
Capacitance				2R5 = 2.5V		V	Exa	mple:
							475 = 47 x 10	)⁵ μ F or 4.7 F

### PACKAGING INFORMATION

Standard packaging: Bulk, 100 units per package.

Special packaging available upon request. Contact factory.

### **PART MARKING**

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



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