

# Supercapacitors

## B Series - High Capacitance



### Description

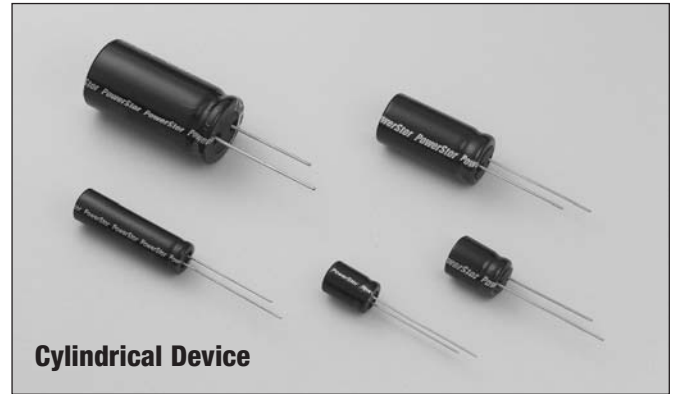
Cooper Bussmann PowerStor® supercapacitors are unique, ultra-high capacitance devices utilizing electrochemical double layer capacitor (EDLC) construction combined with new, high performance materials. This combination of advanced technologies allows Cooper Bussmann to offer a wide variety of capacitor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

### Features & Benefits

- High specific capacitance
- Very low ESR
- Low leakage currents
- Long cycle life

### Applications

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



**Cylindrical Device**

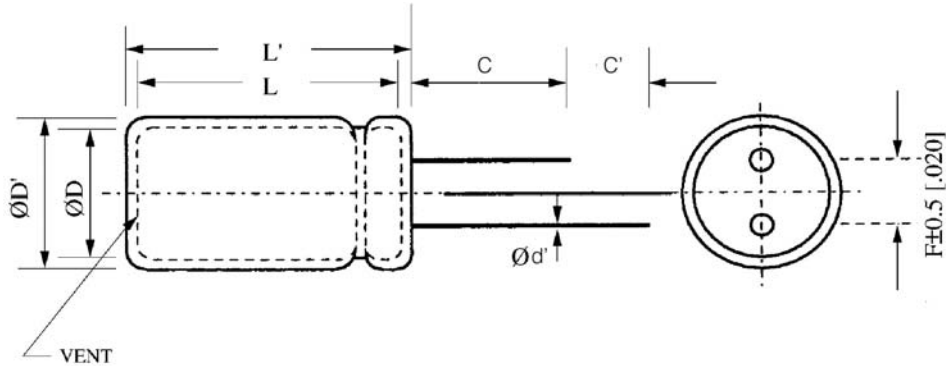
Specifications	
Working Voltage	2.5V
Surge Voltage	3.0V
Capacitance	3.3F to 100F
Capacitance Tolerance	-20% to +80% (20°C)
Operating Temperature Range	3.3-22F = -25°C to 70°C, 33-100F = -25°C to 60°C

Standard Product					
Nominal Capacitance (F)	Part Number	Nominal ESR (Ω) (Equivalent Series Resistance) Measured @ 1kHz	Nominal Dimensions (mm)		Typical Mass (grams/piece)
			Diameter	Length	
3.3	B1020-2R5335-R	0.150	10	20.5	2.8
4.7	B0830-2R5475-R	0.150	8	30	2.6
6.8	B1030-2R5685-R	0.100	10	30	3.9
10	B1325-2R5106-R	0.060	13	26	5.6
22	B1635-2R5226-R	0.040	16	35	11.0
33	B1835-2R5336-R	0.030	18	35	13.5
50	B1840-2R5506-R	0.025	18	40	14.7
100	B1860-2R5107-R	0.020	18	60	22.0

Performance		
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)
Life (3.3F - 22F = 1000 hrs @ 70°C @ 2.5Vdc) (33F - 100F = 1000 hrs @ 60°C @ 2.5Vdc)	≤ 30 %	≤ 300 %
Storage Low and High Temperature (3.3F - 22F = 1000 hrs @ -25°C and 70°C) (33F - 100F = 1000 hrs @ -25°C and 60°C)	≤ 30 %	≤ 300 %

Dimensions (mm)								
Part Number	D	D'	L	L'	F	d'	C	C'
B1020-2R5335-R	10.0	10.5	21.8	22.3	5.0	0.60	20.0	5.0
B0830-2R5475-R	8.0	8.5	30.5	31.0	3.5	0.50	20.0	5.0
B1030-2R5685-R	10.0	10.5	31.0	31.5	5.0	0.60	20.0	5.0
B1325-2R5106-R	13.0	13.5	27.9	28.4	5.0	0.60	20.0	5.0
B1635-2R5226-R	16.0	16.5	37.5	38.0	7.5	0.80	20.0	5.0
B1835-2R5336-R	18.0	18.5	37.5	38.0	7.5	0.80	20.0	5.0
B1840-2R5506-R	18.0	18.5	41.5	42.0	7.5	0.80	20.0	5.0
B1860-2R5107-R	18.0	18.5	59.5	60.5	7.5	0.80	20.0	5.0
<b>Tolerances</b>	<b>Maximum</b>				<b>± 0.5</b>	<b>± 0.02</b>	<b>Minimum</b>	

Note: Longer lead is positive.



Part Numbering System							
B	□	□	□	□	2	R	5
Series Code	Dimensions (mm)		Voltage (V)			Capacitance (µF)	
B Series	Diameter	Length	R is Decimal			Value	Multiplier
			2R5 = 2.5V			Example: 475 = 47 x 10 <sup>5</sup> µF or 4.7F	

### 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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