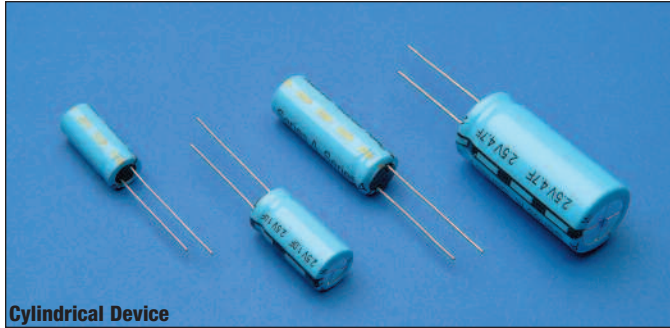


# Supercapacitors

## A Series



Cylindrical Device

### 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

- Very low ESR
- Low leakage current
- Long cycle life
- High useable capacity
- Very high specific capacitance also available (B Series)

### Applications

- Pulse power
- Hold-up power
- DC/DC converters
- Hybrid battery packs
- Valve / solenoid actuation

### Specifications

<b>Working Voltage</b>	2.5V
<b>Surge Voltage</b>	3.0V
<b>Nominal Capacitance Range</b>	0.47 to 4.7F
<b>Capacitance Tolerance</b>	-20% to +80% (20°C)
<b>Operating Temperature Range</b>	-25°C to 70°C

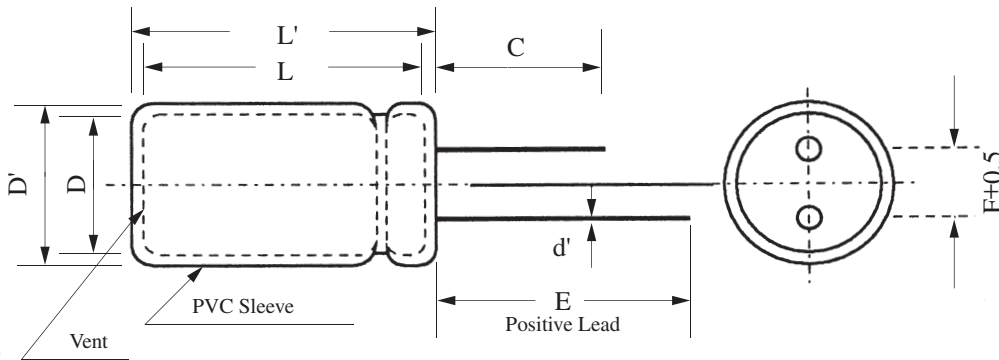
### Standard Products

Nominal Capacitance (F)	Part Number	Nominal ESR ( $\Omega$ ) (Equivalent Series Resistance) Measured @ 1kHz	Nominal Dimensions (mm)		Typical Mass (grams/1 piece)
			Diameter	Length	
0.47	A0820-2R5474-R	0.150	8	20	1.8
1.0	A1020-2R5105-R	0.090	10	20.5	2.6
1.5	A1030-2R5155-R	0.060	10	30	3.8
4.7	A1635-2R5475-R	0.025	16	35	10.7

### Performance

Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)
Life (1000 hrs @ 70°C @ 2.5Vdc)	≤ 30	≤ 300
Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C)	≤ 30	≤ 300

Dimensions (mm)								
Part Number	D	D'	L	L'	F	d'	C	E
A0820-2R5474-R	8.0	8.5	20.5	21.0	3.5	0.50	20.0	25.0
A1020-2R5105-R	10.0	10.5	21.8	22.3	5.0	0.60	20.0	25.0
A1030-2R5155-R	10.0	10.5	31.0	31.5	5.0	0.60	20.0	25.0
A1635-2R5475-R	16.0	16.5	37.5	38.0	7.5	0.80	20.0	25.0
<b>Tolerances</b>	Maximum				± 0.5	± 0.02	Minimum	



Part Numbering System											
<b>A</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<b>2</b>	<b>R</b>	<b>5</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Series Code	Dimensions (mm)					Voltage (V) R is decimal		Capacitance (µF)			
B = Very Low ESR	Diameter	Length				2R5 = 2.5V		Value	Multiplier		
								Example: 475 = 47 x 10 <sup>5</sup> µF or 4.7F			

### 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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