

Description

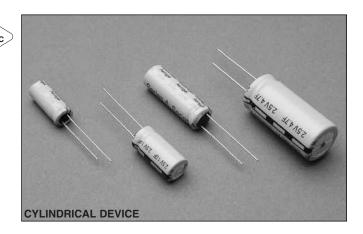
The PowerStor® Aerogel Capacitor is a unique, ultra-high capacitance device based on a novel type of carbon foam, known as carbon aerogel. Aerogel capacitors are similar to supercapacitors, ultracapacitors and electrochemical double layer capacitors (EDLCs) with the added benefit of low ESR (Equivalent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

Features & Benefits

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

STANDARD PRODUCTS						
Nominal Capacitance (F)	Part Number	Nominal ESR (Equivalent Series Resistance) Measured @ 1kHz (Ω)	Nominal Dimensions	Typical Mass (grams/1 piece)		
0.47	A0820-2R5474-R	0.150	Ø = 8 mm; L = 20 mm	1.788		
1.0	A1020-2R5105-R	0.090	Ø = 10 mm; L = 20.5 mm	2.608		
1.5	A1030-2R5155-R	0.060	Ø = 10 mm; L = 30 mm	3.814		
4.7	A1635-2R5475-R	0.025	Ø = 16 mm; L = 35 mm	10.748		

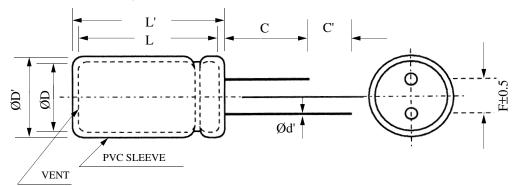
PERFORMANCE					
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)			
Life (1000 hrs @ 70°C @ 2.5 volts DC)	≤ 30	≤ 300			
Storage - Low and High Temperature	≤ 30	≤ 300			
(1000 hrs @ -25°C and 70°C)					

PowerStor[°] Aerogel Supercapacitors A Series



DIMENSIONS (mm)								
Part Number	D	D'	L	Ľ	F	ď	С	Ċ
A0820-2R5474-R	8.0	8.5	20.5	21.0	3.5	0.50	20.0	5.0
A1020-2R5105-R	10.0	10.5	21.8	22.3	5.0	0.60	20.0	5.0
A1030-2R5155-R	10.0	10.5	31.0	31.5	5.0	0.60	20.0	5.0
A1635-2R5475-R	16.0	16.5	37.5	38.0	7.5	0.80	20.0	5.0
	Maximum				± 0.5	± 0.02	Minii	num

Note: Longer lead is positive



PART NUMBERING SYSTEM								
Α			-	2	R	5		
Series Code	Dimensions (mm)			Voltage (V) R is decimal		-	Capacitance (µF)	
B = Very	Diameter	Length					Value	Multiplier
Low ESR				2R5 = 2.5V			mple: D⁵ 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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