

Description

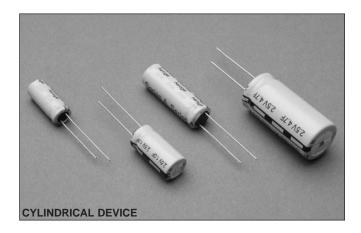
The PowerStor Aerogel Capacitor is a unique, ultra-high capacitance device based on a novel type of carbon foam, known as carbon aerogel. Aerogel capacitors are similar to supercapacitors, ultracapacitors and electrochemical double layer capacitors (EDLCs) with the added benefit of low ESR (Equivalent 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	Part	Nominal ESR	Nominal Dimensions			
Capacitance	Number	(Equivalent Series Resistance)				
(F)		Measured @ 1kHz (Ω)				
0.47	A0820-2R5474	0.150	Ø = 8 mm; L = 20 mm			
1.0	A1020-2R5105	0.090	Ø = 10 mm; L = 20.5 mm			
1.5	A1030-2R5155	0.060	Ø = 10 mm; L = 30 mm			
4.7	A1635-2R5475	0.025	Ø = 16 mm; L = 35 mm			

PERFORMANCE						
Parameter	Capacitance Change	ESR (0/ of initial analitical value)				
	(% 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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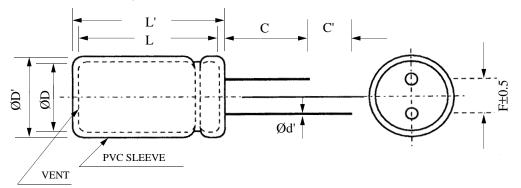
PowerStor[®] Aerogel Supercapacitors A Series

PowerStor Aerogel Supercapacitors A Series



DIMENSIONS (mm)								
Part Number	D	D'	L	L'	F	d'	С	C'
A0820-2R5474	8.0	8.5	20.5	21.0	3.5	0.50	20.0	5.0
A1020-2R5105	10.0	10.5	21.8	22.3	5.0	0.60	20.0	5.0
A1030-2R5155	10.0	10.5	31.0	31.5	5.0	0.60	20.0	5.0
A1635-2R5475	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		2R5 = 2.5V			Value	Multiplier
Low ESR						V	Exar 475 = 47 x 10	nple:)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



PS-5101 1/05

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