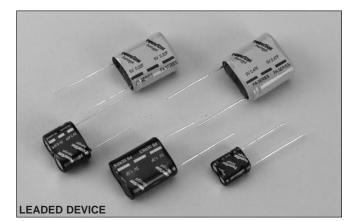


Description

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).

The P Series is available in an ultra-low ESR version, PA or a low ESR but higher energy density version, PB.



PowerStor[®]

Aerogel Supercapacitors P Series

SEDIES	FEATURES A	APPLICATIONS			
SERIES	Generic	Specific	APPLICATIONS		
PA	5.0 volts	Ultra-low ESR	Pulse power		
FA	Low ESR		Bridge or hold up power		
	High capacitance	Low ESR with higher	Bridge or hold up power		
PB	Long cycle life	energy density	Memory backup		
	Low leakage currents	energy density	Battery swap out		

SPECIFICATIONS						
Working Voltage 5.0 volts						
Surge Voltage	6.0 volts					
Nominal Capacitance Range	0.1 to 1.0 F					
Capacitance Tolerance	-20% to +80% (20°C)					
Operating Temperature Range	-25°C to 70°C					

		STANDARD PRODUCT	ſS						
	LOW ESR (PB SERIES)								
Nominal	Part	Nominal ESR	Nominal Dimensions	Typical Mass					
Capacitance	Number	(Equivalent Series Resistance)		(grams/1 piece)					
(F)		Measured @ 1kHz (Ω)							
0.1	PB-5R0V104	10	5.5 x 10.8 x 12.5 mm	1.06					
	PB-5R0H104								
0.47	PB-5R0V474	2	8.5 x 16.8 x 14.0 mm	2.43					
	PB-5R0H474								
1.0	PB-5R0V105	1	8.5 x 16.8 x 21.5 mm	3.542					
	PB-5R0H105								
		ULTRA-LOW ESR (PA SE	RIES)						
0.22	PA-5R0V224	0.30	8.5 x 16.8 x 21.5 mm	3.462					
	PA-5R0H224								
0.47	PA-5R0V474	0.20	10.5 x 20.8 x 22.5 mm	5.41					
	PA-5R0H474								

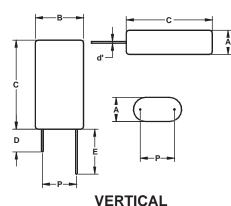
PERFORMANCE						
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial specified value)				
Life (1000 hrs @ 70°C @ 5.0 volts DC)	≤ 30	≤ 300				
Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C)	≤ 30	≤ 300				

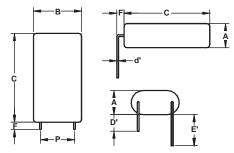
PowerStor® Aerogel Supercapacitors P Series



DIMENSIONS (mm)										
Part Number	Α	В	С	ď	D	D'	E	E'	F	Р
PB-5R0V104 PB-5R0H104	6.0	11.3	13.0	0.5	20	15	25	20	2.0	7.3
PB-5R0V474 PB-5R0H474	9.0	17.3	14.5	0.5	20	15	25	20	2.0	11.8
PB-5R0V105 PB-5R0H105	9.0	17.3	22.0	0.5	20	15	25	20	2.0	11.8
PA-5R0V224 PA-5R0H224	9.0	17.3	22.0	0.5	20	15	25	20	2.0	11.8
PA-5R0V474 PA-5R0H474	11.0	21.3	23.0	0.6	20	15	25	20	2.0	5.3
Tolerances	Maximum			± 0.02	Minimum			± 0.5		

Note: Longer lead is positive





HORIZONTAL

PART NUMBERING SYSTEM								
Р		-	5	R	0			
Series Code	Version		Voltage (V) R is decimal			Configuration	Capacitance (µF)	
P = Pack	A = Ultra-low ESR - or - B = High Capacitance		5R0 = 5.0V		0V	V = Vertical - or - H = Horizontal	ValueMultiplierExample:474 = 47 x 104 µ F or 0.47	

PACKAGING INFORMATION

Standard packaging: Bulk, 100 units per package.

Larger bulk packages available upon request.

PART MARKING

Manufacturer Capacitance (F) Max. Operating Voltage (V) **Polarity Marking**

COOPER Bussmann

PS-5132 7/05

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