



## 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 a few milliseconds.



**PM** Series

LEADED DEVICE

**PowerStor**<sup>®</sup>

**Aerogel Capacitors** 

SERIES	FEATURES AND	APPLICATIONS	
	Generic	Specific	AFFLICATIONS
РМ	5.0 volts, Low ESR, High capacitance Long cycle life Low leakage currents RoHS compliant	Low ESR with high energy density	Pulse Power Bridge or Hold Up Power

SPECIFICATIONS							
Working Voltage (maximum)	5.0 volts						
Surge Voltage	5.5 volts						
Nominal Capacitance Range	0.1F to 3F						
Capacitance Tolerance	-20% to +80% (20°C)						
Operating Temperature Range	-40°C to 60°C						
Extended Operating Temperature Range	-40°C to 85°C (Max. working voltage: 3.9V)						

	STANDARD PRODUCTS								
	HIGH EN	IERGY DEN	SITY & ULTF	RA LOW ESR	(PM SERIES)				
Nominal Capacitance (F)	Part Number	(Equivale	ESR (Ω) ent Series tance)	Nominal Leakage Current (μA) @ 20℃ after	Nominal Dimensions	Typical Mass (grams/piece)			
		Measured @ 1kHz	Measured @ DC	100 Hours					
0.1	PM-5R0V104-R PM-5R0H104-R	1.25	1.5	TBD	5.5 x 10.8 x 12.5 mm	1.1			
0.47	PM-5R0V474-R PM-5R0H474-R	0.30	0.40	TBD	8.5 x 16.8 x 14.0 mm	2.4			
1.0	PM-5R0V105-R PM-5R0H105-R	0.15	0.20	TBD	8.5 x 16.8 x 21.5 mm	3.5			
1.5	PM-5R0V155-R PM-5R0H155-R	0.07	0.10	15	10.5 x 20.8 x 22.5 mm	5.4			
3.0	PM-5R0V305-R PM-5R0H305-R	0.05	0.07	20	10.5 x 20.8 x 32 mm	7.8			

PERFORMANCE							
Parameter	Capacitance Change (% of initial specified value)	ESR (% of initial specified value)					
Life (1000 hrs @ 60°C @ 5 volts DC)	≤ <b>30</b> %	≤ 200 %					
Storage- Low and High Temperature (1000 hrs @ -40°C and 85°C)	≤ 30 %	≤ 200 %					



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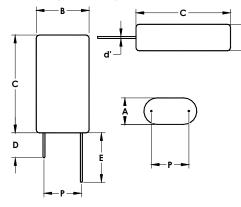
## **PowerStor**<sup>®</sup> Aerogel Capacitors PM Series

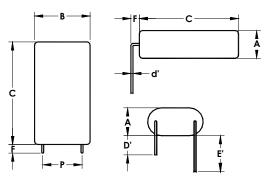


DIMENSIONS (mm)										
Part Number	Α	В	С	ď	D	D'	E	E'	F	Р
PM-5R0V104-R PM-5R0H104-R	6.0	11.3	13.0	0.5	20	15	25	20	2.0	7.3
PM-5R0V474-R PM-5R0H474-R	9.0	17.3	14.5	0.5	20	15	25	20	2.0	11.8
PM-5R0V105-R PM-5R0H105-R	9.0	17.3	22.0	0.5	20	15	25	20	2.0	11.8
PM-5R0V155-R PM-5R0H155-R	11.0	21.3	23.0	0.6	20	15	25	20	2.0	5.3
PM-5R0V305-R PM-5R0H305-R	11.0	21.3	32.5	0.6	20	15	25	20	2.0	5.3
Tolerances	N	Maximum		± 0.02		Mini	mum		± 0	.5

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Note (1): Longer lead is positive.





VERTICAL

## HORIZONTAL

PART NUMBERING SYSTEM											
Р	М	-	5	R	0					-	R
Series Code	Version			oltage is decii		Configuration	C	Capacitanc	ce (μ F)		Dallo
						V = Vertical	Valu		Multiplier		RoHS Complaint
P = Pack			5F	R0 = 5.	.0V	- or - H = Horizontal	Example	e: 474 = 4 0.47	F x 10 <sup>4</sup> μ F or F		

PACKAGING INFORMATION	PART MARKING		
Standard packaging: Bulk, 100 units per package. Larger bulk packages available upon request.	Manufacturer Capacitance (F) Max. Operating Voltage (V) Series Code (or part number) Polarity		

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