

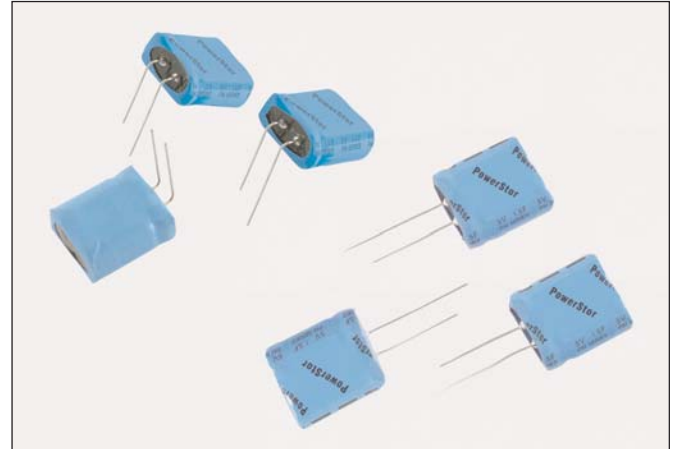
# Supercapacitors

## PM Series



### 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 and Benefits			
Series	Generic	Specific	Applications
PM	5.0 Volts, low ESR, high capacitance long cycle life, low leakage current RoHS compliant, halogen free, lead free	Low ESR with high energy density	Pulse power, bridge or hold up power

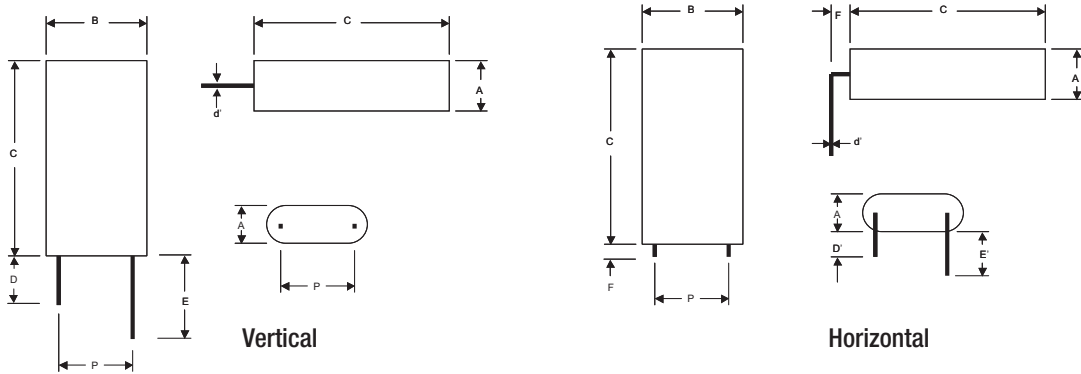
Specifications	
Working Voltage	5.0V
Surge Voltage	5.5V
Nominal Capacitance	0.47F to 3.0F
Capacitance Tolerance	-20% to +80% (20°C)
Operating Temperature Range	-40°C to 60°C
Extended Operating Temperature Range	-40°C to 85°C (Max. working voltage: 3.9V)

Standard Product						
Nominal Capacitance (F)	Part Number	Nominal ESR ( $\Omega$ ) (Equivalent Series Resistance) Measured @		Nominal Leakage Current ( $\mu$ A) After 100 Hrs. @ 5V, 20°C	Nominal Dimensions (mm)	Typical Mass (grams/piece)
		1kHz	100Hz			
0.47	PM-5R0V474-R PM-5R0H474-R	0.30	0.40	8	8.5 x 16.8 x 14.0	2.4
1.0	PM-5R0V105-R PM-5R0H105-R	0.15	0.20	10	8.5 x 16.8 x 21.5	3.5
1.5	PM-5R0V155-R PM-5R0H155-R	0.07	0.10	15	10.5 x 20.8 x 22.5	5.4
3.0	PM-5R0V305-R PM-5R0H305-R	0.05	0.07	20	10.5 x 20.8 x 32	7.8

Performance		
Parameter	Capacitance Change (% of initial measured value)	ESR (% of initial measured value)
Life (1000 hrs @ 60°C @ 5Vdc)	≤ 30 %	≤ 200 %
Storage - Low and High Temperature (1000 hrs @ -40°C and 60°C)	≤ 30 %	≤ 200 %

Dimensions (mm)										
Part Number	A	B	C	d'	D	D'	E	E'	F	P
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
<b>Tolerances</b>	<b>Maximum</b>			<b>± 0.02</b>	<b>Minimum</b>				<b>± 0.5</b>	

Note (1): Longer lead is positive.



Part Numbering System										
P	M	-	5	R	0				-	R
Series Code	Version		Voltage (V) R is Decimal			Configuration	Capacitance (μF)			RoHS Compliant
P = Pack			5R0 = 5.0V			V = Vertical - or - H = Horizontal	Value	Multiplier	Example: 474 = 47 x 10 <sup>4</sup> μF or 0.47F	

### Packaging Information

Standard packaging: Bulk, 100 units per package.

Large, bulk packaging available upon request.

### Part Marking

Manufacturer  
Capacitance (F)  
Max. Operating Voltage (V)  
Series Code (or part number)  
Polarity

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