

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.

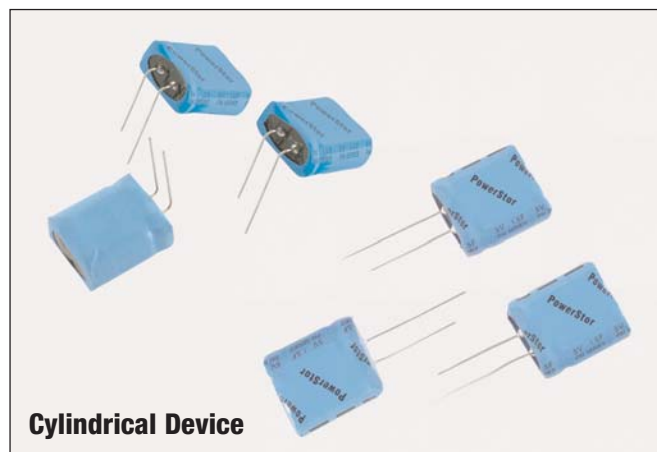
Features & Benefits

- Low ESR with high energy density
- 5.0 Volts
- High capacitance
- Long cycle life
- Low leakage currents
- UL Recognized



Applications

- Pulse power
- Bridge or hold-up power



Cylindrical Device

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

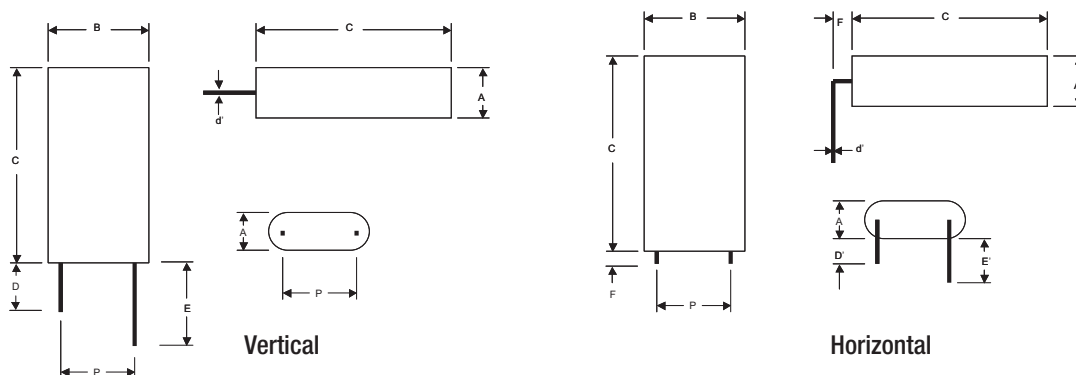
Nominal Capacitance (F)	Part Number		Nominal ESR (Ω) (Equivalent Series Resistance) Measured @		Nominal Leakage Current (μ A) After 100 Hrs. @ 5V, 20°C	Nominal Dimensions (mm)	Typical Mass (grams/piece)
	Vertical	Horizontal	1kHz	100Hz			
0.47	PM-5R0V474-R	PM-5R0H474-R	0.42	0.50	8	8.5 x 16.8 x 14.0	2.4
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 specified value)	ESR (% of specified value)
Life (1000 hrs @ 60°C @ 5Vdc)	$\leq 30 \%$	$\leq 200 \%$
Storage - Low and High Temperature (1000 hrs @ -40°C and 60°C)	$\leq 30 \%$	$\leq 200 \%$

Dimensions (mm)											
Vertical Part#	Horizontal Part#	A	B	C	d'	D	D'	E	E'	F	P
PM-5ROV474-R	PM-5ROH474-R	9.0	17.3	14.5	0.5	20	15	25	20	2.0	11.8
PM-5ROV105-R	PM-5ROH105-R	9.0	17.3	22.0	0.5	20	15	25	20	2.0	11.8
PM-5ROV155-R	PM-5ROH155-R	11.0	21.3	23.0	0.6	20	15	25	20	2.0	5.3
PM-5ROV305-R	PM-5ROH305-R	11.0	21.3	32.5	0.6	20	15	25	20	2.0	5.3
Tolerances		Maximum			± 0.02	Minimum				± 0.5	

Note: Longer lead is positive.



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

Packaging Information	Part Marking
Standard packaging: Bulk, 100 units per package. Large, bulk packaging available upon request.	Manufacturer Capacitance (F) Max. Operating Voltage (V) Series Code (or part number) Polarity

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