

# PowerStor KR Series

## Coin cell supercapacitors



### Features and benefits

- High specific capacitance
- Low leakage current
- Long cycle life
- Eco-friendly

### Applications

- Computers and peripherals
- Network switches and routers
- Utility meters
- HVAC Controls
- White good and kitchen appliances
- Real-time clock backup
- Office equipment

### Description

Eaton 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 Eaton to offer a wide variety of capacitor solutions tailored to specific applications that range from a few microamps for several days to several milliamps for milliseconds.



Powering Business Worldwide

The PowerStor brand of supercapacitors (formerly of the Bussmann Division of Cooper Industries) is now part of Eaton's Electrical Group, Electronics Division.



**PowerStor is now part of Eaton**  
**Same great products plus even more.**

**Specifications**

Capacitance	0.1F to 1.5F
Working voltage	5.5V
Surge voltage	6.3V
Capacitance tolerance	-20% to +80% (20°C)
Operating temperature range	-25°C to 70°C

**Standard Product**

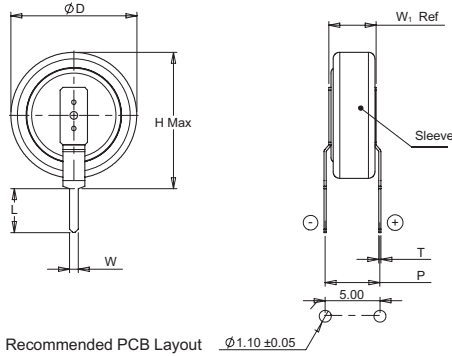
Capacitance (F)	Part number	Type	Lead length	Maximum initial DC ESR ( $\Omega$ ) (Equivalent Series Resistance) measured @ 1kHz	Typical mass (grams/piece)	
0.1	KR-5R5V104-R	Vertical	Standard	75	1.4	
	KR-5R5H104-R	Horizontal	Standard			
	KR-5R5C104-R	Cylindrical	Standard		3.3	
	KR-5R5C104H-R	Cylindrical	Short			
0.22	KR-5R5V224-R	Vertical	Standard		50	1.4
	KR-5R5H224-R	Horizontal	Standard			
	KR-5R5C224-R	Cylindrical	Standard			3.3
	KR-5R5C224H-R	Cylindrical	Short			
0.33	KR-5R5V334-R	Vertical	Standard	30		1.4
	KR-5R5H334-R	Horizontal	Standard			
	KR-5R5C334-R	Cylindrical	Standard			3.3
	KR-5R5C334H-R	Cylindrical	Short			
0.47	KR-5R5V474-R	Vertical	Standard		75	1.4
	KR-5R5H474-R	Horizontal	Standard			
	KR-5R5C474-R	Cylindrical	Standard			3.3
	KR-5R5C474H-R	Cylindrical	Short			
1.0	KR-5R5V105-R	Vertical	Standard	50		4.2
	KR-5R5H105-R	Horizontal	Standard			
	KR-5R5C105-R	Cylindrical	Standard			9.1
	KR-5R5C105H-R	Cylindrical	Short			
1.5	KR-5R5V155-R	Vertical	Standard		30	4.2
	KR-5R5H155-R	Horizontal	Standard			
	KR-5R5C155-R	Cylindrical	Standard			9.1
	KR-5R5C155H-R	Cylindrical	Short			

**Performance**

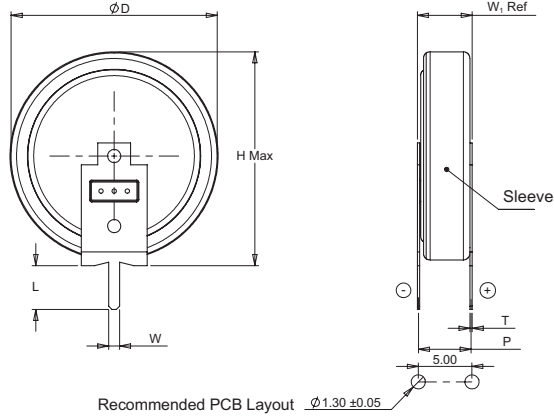
Parameter		Capacitance change (% of initial value)	ESR (% of max. initial value)
Life			
70°C @ 5.5Vdc	1000 hours	≤ 30%	≤ 400%
Storage Life			
-25°C to +70°C	1000 hours	≤ 30%	≤ 400%

Dimensions - mm

KR-5R5V104/224/334/474-R



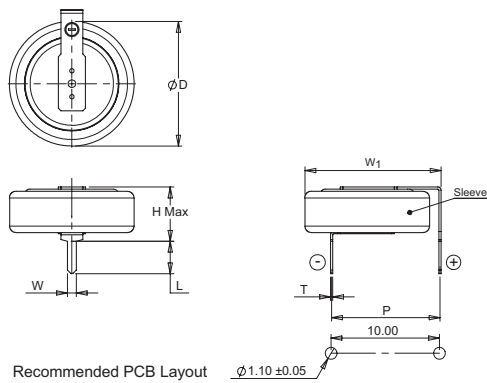
KR-5R5V105/155-R



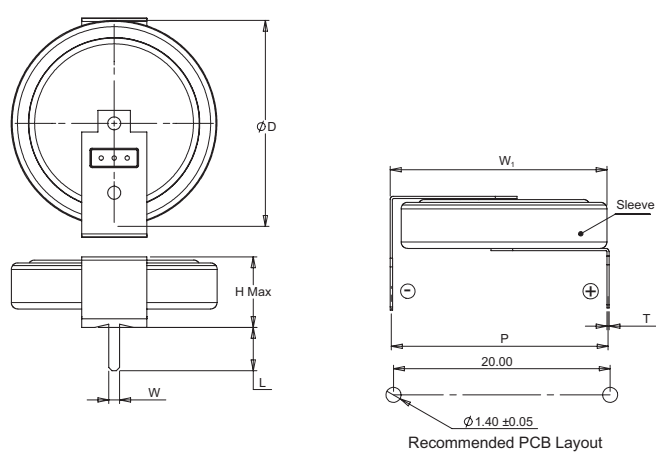
Type V (vertical)

Part Number	$\phi D \pm 0.2$	H Max	$L \pm 0.1$	$P \pm 0.3$	T	$W \pm 0.1$	W1 Ref.
KR-5R5V104-R	11.5	12.7	4.0	5.0	0.2	0.8	4.3
KR-5R5V224-R	11.5	12.7	4.0	5.0	0.2	0.8	4.3
KR-5R5V334-R	11.5	12.7	4.0	5.0	0.2	0.8	4.3
KR-5R5V474-R	11.5	12.7	4.0	5.0	0.2	0.8	4.3
KR-5R5V105-R	19.0	19.7	4.0	5.0	0.2	1.0	5.0
KR-5R5V155-R	19.0	19.7	4.0	5.0	0.2	1.0	5.0

KR-5R5H104/224/334/474-R



KR-5R5H105/155-R

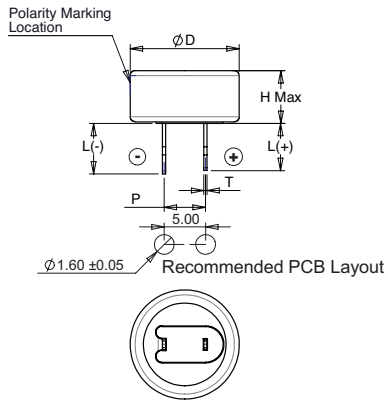


Type H (horizontal)

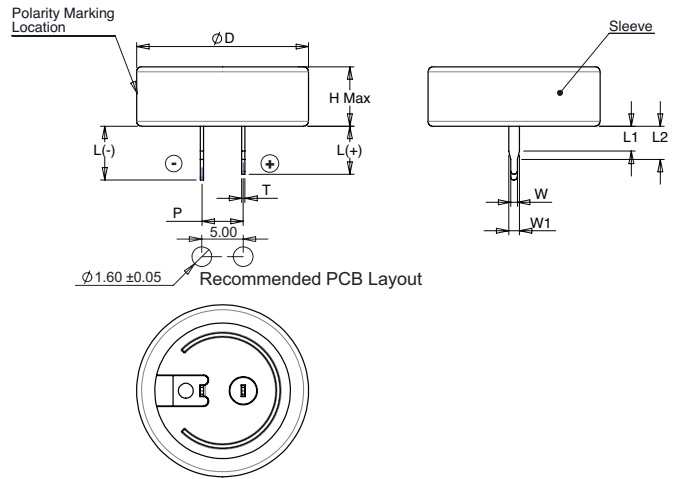
Part Number	$\phi D \pm 0.2$	H Max	$L \pm 0.1$	P	T	$W \pm 0.1$	$W1 \pm 0.5$
KR-5R5H104-R	11.5	5.2	3.0	$10.0 \pm 0.3$	0.2	0.8	12.4
KR-5R5H224-R	11.5	5.2	3.0	$10.0 \pm 0.3$	0.2	0.8	12.4
KR-5R5H334-R	11.5	5.2	3.0	$10.0 \pm 0.3$	0.2	0.8	12.4
KR-5R5H474-R	11.5	5.2	3.0	$10.0 \pm 0.3$	0.2	0.8	12.4
KR-5R5H105-R	19.0	6.7	4.0	$20.0 \pm 0.5$	0.2	1.0	20.0
KR-5R5H155-R	19.0	6.7	4.0	$20.0 \pm 0.5$	0.2	1.0	20.0

Dimensions - mm

KR-5R5C104/224/334/474-R



KR-5R5C105/155-R



C Type (cylindrical)

Part Number	$\phi D$ Max	H Max	L(-) $\pm 0.2$	L(+) $\pm 0.2$	P $\pm 0.3$	T $\pm 0.05$	L1 $\pm 0.10$	L2 $\pm 0.10$	W $\pm 0.06$	W1 $\pm 0.06$
KR-5R5C104-R	13.5	6.4	6.1	5.7	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C104H-R	13.5	6.4	3.3	3.3	5.0	0.4	0.9	1.9	0.8	1.3
KR-5R5C224-R	13.5	6.4	6.1	5.7	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C224H-R	13.5	6.4	3.3	3.3	5.0	0.4	0.9	1.9	0.8	1.3
KR-5R5C334-R	13.5	6.4	6.1	5.7	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C334H-R	13.5	6.4	3.3	3.3	5.0	0.4	0.9	1.9	0.8	1.3
KR-5R5C474-R	13.5	6.4	6.1	5.7	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C474H-R	13.5	6.4	3.3	3.3	5.0	0.4	0.9	1.9	0.8	1.3
KR-5R5C105-R	21.5	6.9	6.5	5.8	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C105H-R	21.5	6.9	3.3	3.3	5.0	0.4	0.8	1.8	0.8	1.3
KR-5R5C155-R	21.5	6.9	6.5	5.8	5.0	0.4	3.0	4.0	0.8	1.3
KR-5R5C155H-R	21.5	6.9	3.3	3.3	5.0	0.4	0.8	1.8	0.8	1.3

**Part Numbering System**

<b>KR</b>	-	<b>5</b>	<b>R</b>	<b>5</b>	□	□	□	<b>H*</b>	<b>-R</b>
Series Code		Voltage (V) R = Decimal		Configuration	Capacitance (μF)		Short lead length	RoHS Compliant	
		5R5 = 5.5V			Value	Multiplier			
				V = Vertical H = Horizontal C = Cylindrical	Example: 474 = 47 x 10 <sup>4</sup> μF or 0.47F				

\* Applies to cylindrical part numbers only. If ordering vertical or horizontal types, or standard lead length on cylindrical type, omit "H" from part number.

**Packaging information**

- Standard packaging: 500 pieces per package
- For 0.1F to 0.47F, 500 pieces per bag
- For 1.0F to 1.5F, 100 pieces per tray, 5 trays per box

**Part marking**

- Manufacturer
- Capacitance (F)
- Max operating voltage (V)
- Polarity

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