

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.



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
Extended operating temperature range	-25°C to 85°C (with voltage derating to 3.6V @ 85°C)

Standard Product

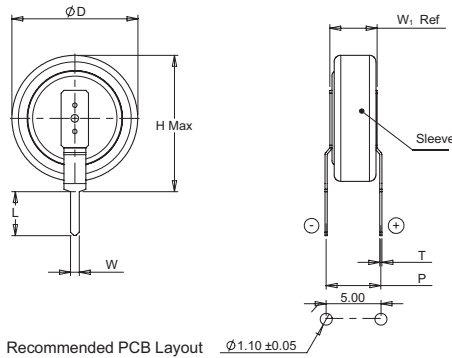
Capacitance (F)	Part number	Type	Lead length	Maximum initial DC ESR (Ω) (Equivalent Series Resistance) measured @ 1kHz	Typical mass (grams/piece)		
0.1	KR-5R5V104-R	Vertical	Standard	75	1.4		
	KR-5R5H104-R	Horizontal	Standard		1.4		
	KR-5R5C104-R	Cylindrical	Standard		3.3		
	KR-5R5C104H-R	Cylindrical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

Performance

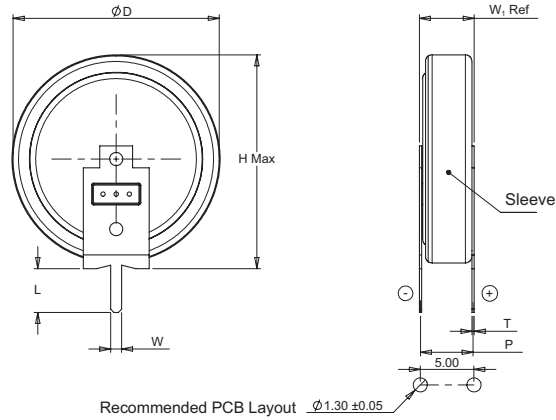
Parameter		Capacitance change (% of initial value)	ESR (% of max. initial value)
Life			
70°C @ 5.5Vdc	1000 hours	≤ 30%	≤ 400%
85°C @ 3.6Vdc	2000 hours	≤ 30%	≤ 400%
Storage Life			
-25°C to +70°C	1000 hours	≤ 30%	≤ 400%

Dimensions - mm

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



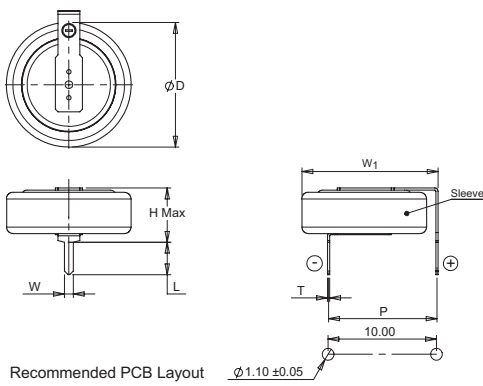
KR-5R5V105/155-R



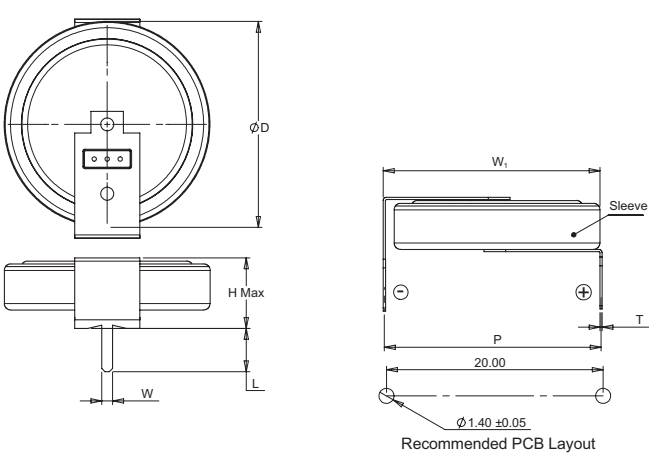
Type V (vertical)

Part Number	Ø D ±0.2	H Max	L ±0.1	P ±0.3	T	W±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

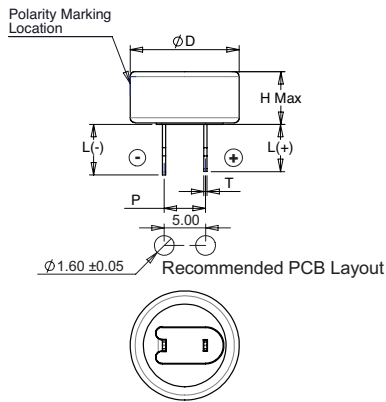


Type H (horizontal)

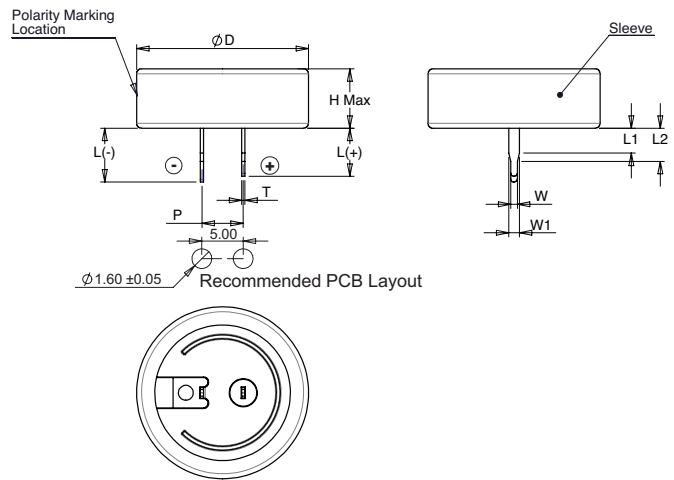
Part Number	Ø D ±0.2	H Max	L±0.1	P	T	W±0.1	W1±0.5
KR-5R5H104-R	11.5	5.2	3.0	10.0±0.3	0.2	0.8	12.4
KR-5R5H224-R	11.5	5.2	3.0	10.0±0.3	0.2	0.8	12.4
KR-5R5H334-R	11.5	5.2	3.0	10.0±0.3	0.2	0.8	12.4
KR-5R5H474-R	11.5	5.2	3.0	10.0±0.3	0.2	0.8	12.4
KR-5R5H105-R	19.0	6.7	4.0	20.0±0.5	0.2	1.0	20.0
KR-5R5H155-R	19.0	6.7	4.0	20.0±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	ϕD Max	H Max	L(-) ± 0.2	L(+) ± 0.2	P ± 0.3	T ± 0.05	L1 ± 0.10	L2 ± 0.10	W ± 0.06	W1 ± 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

KR	-	5	R	5	□	□	□	H*	-R
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 ⁴ 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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