PowerStor KW Series

Coin cell supercapacitors



Features and benefits

- High specific capacitance
- Low leakage current
- Long cycle life
- Eco-friendly
- Broad operating range, full specification -40°C to +85°C

Applications

- Electric utility meters
- Motor control units
- Solar inverters
- Real-Time Clock (RTC) backup
- Programmable Logic Controllers (PLCs)
- Irrigation and water control systems

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 micro-amps for several days to several milliamps for milliseconds.

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.

Powering Business Worldwide

Specifications

Capacitance	0.1F to 1.0F
Working voltage	5.5V
Surge voltage	6.3V
Capacitance tolerance	-20% to +80% (20°C)
Operating temperature range	-40°C to 85°C

Standard Product

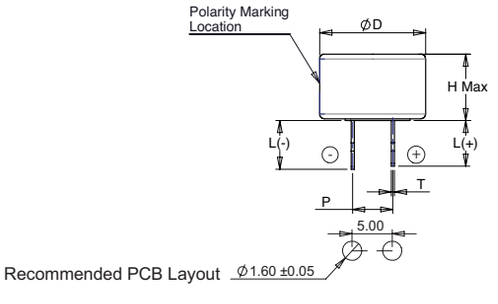
Capacitance (F)	Part number	Lead length	Maximum initial DC ESR (Ω) (Equivalent Series Resistance) measured @ 1kHz	Typical mass (grams/piece)
0.1	KW-5R5C104-R	Standard	50	3.7
0.1	KW-5R5C104H-R	Short		
0.22	KW-5R5C224-R	Standard		
0.22	KW-5R5C224H-R	Short		
0.33	KW-5R5C334-R	Standard		
0.33	KW-5R5C334H-R	Short		
0.68	KW-5R5C684-R	Standard	30	10.2
0.68	KW-5R5C684H-R	Short		
1.0	KW-5R5C105-R	Standard		10.4
1.0	KW-5R5C105H-R	Short		

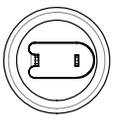
Performance

Parameter		Capacitance change (% of initial value)	ESR (% of max. initial value)
Life			
85°C @ 5.5Vdc	2000 hours	≤ 30%	≤ 200%
Storage Life			
-40°C to +85°C	2000 hours	≤ 30%	≤ 200%

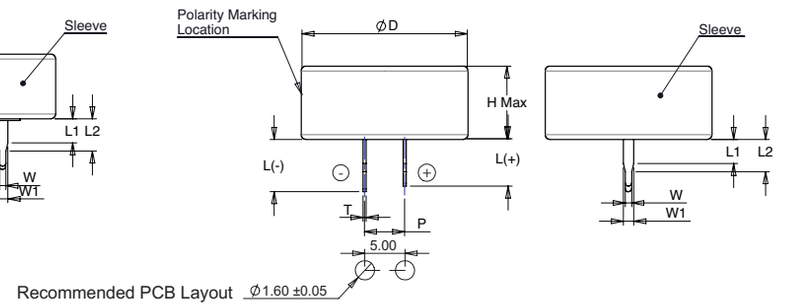
Dimensions - mm

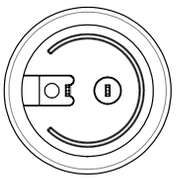
KW-5R5C104/224/334-R





KW-5R5C684/105-R





Part Number	ØD Max	H Max	L(-) ±0.2	L(+) ±0.2	P ±0.3	T ±0.1	L1 ±0.1	L2 ±0.1	W ±0.06	W1 ±0.06
KW-5R5C104-R	13.5	8.30	6.1	5.7	5.0	0.4	3.0	4.0	0.8	1.3
KW-5R5C104H-R			3.3	3.3			0.9	1.9		
KW-5R5C224-R			6.1	5.7			3.0	4.0		
KW-5R5C224H-R			3.3	3.3			0.9	1.9		
KW-5R5C334-R			6.1	5.7			3.0	4.0		
KW-5R5C334H-R			3.3	3.3			0.9	1.9		
KW-5R5C684-R	21.5	8.70	6.5	5.8			3.0	4.0		
KW-5R5C684H-R			3.3	3.3			0.8	1.8		
KW-5R5C105-R			6.5	5.8			3.0	4.0		
KW-5R5C105H-R			3.3	3.3			0.8	1.8		

Part Numbering System

KW	-	5	R	5	C	☐	☐	☐	H*	-R
Series Code		Voltage (V) R = Decimal				Capacitance (µF)			Short lead length	RoHS Compliant
						Value		Multiplier		
		5R5 = 5.5V				Example: 104 = 10 x 10^4µF or 0.1F				

* If ordering standard lead length, omit "H" from part number.

Packaging information

Standard bulk packaging:

- KW-5R5C104/224/334-R - 400 units
- KW-5R5C684/105-R - 500 units

Part marking

- Manufacturer
- Capacitance (F)
- Nominal Working Voltage (V)
- Series Code (or part number)
- Polarity

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