

# Coin Cell Supercapacitors

KW 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.

The KW Series offers a wide range of high capacitance coin cell style products for use in memory and RTC back-up applications. End products include electricity meters, motor control units and solar inverters.

### Features & Benefits

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

### Applications

- RTC Back-up
- Electric utility meters
- Motor control units
- Solar inverters

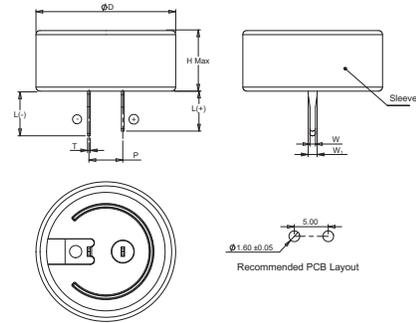
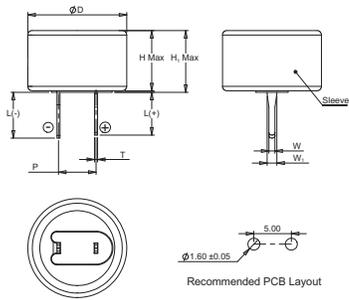


Specifications	
Working Voltage	5.5V
Surge Voltage	6.3V
Capacitance	0.1F to 1.0F
Capacitance Tolerance	-20% to +80% (20°C)
Operating Temperature Range	-40°C to 85°C

Standard Product				
Capacitance (F)	Part Number	Maximum Initial ESR ( $\Omega$ ) (Equivalent Series Resistance) Measured @ 1kHz	Maximum Dimensions (mm)	Typical Mass (grams/piece)
0.1	KW-5R5C104-R	50	$\varnothing = 13.5$ ; H = 8.30; P = 5	3.7
0.22	KW-5R5C224-R	50	$\varnothing = 13.5$ ; H = 8.30; P = 5	3.7
0.33	KW-5R5C334-R	50	$\varnothing = 13.5$ ; H = 8.30; P = 5	3.7
0.68	KW-5R5C684-R	30	$\varnothing = 21.5$ ; H = 9.00; P = 5	10.2
1.0	KW-5R5C105-R	30	$\varnothing = 21.5$ ; H = 9.00; P = 5	10.4

Performance		
Parameter	Capacitance Change (% of Initial Measured Value)	ESR (% of Max Initial ESR)
Life (2000 hrs @ 85°C @ 5.5Vdc)	$\leq 30\%$	$\leq 200\%$
Storage - Low and High Temperature (2000 hrs @ -40°C and 85°C)	$\leq 30\%$	$\leq 200\%$

## Dimensions - mm



### 0.1F to 0.33F

Part Number	ØD Max	H Max	H <sub>1</sub> Max	L(-) ±0.2	L(+) ±0.2	P ±0.3	T	W ±0.1	W <sub>1</sub> ±0.1
KW-5R5C104-R	13.5	8.25	8.30	6.10	5.70	5.00	0.40	0.80	1.30
KW-5R5C224-R	13.5	8.25	8.30	6.10	5.70	5.00	0.40	0.80	1.30
KW-5R5C334-R	13.5	8.25	8.30	6.10	5.70	5.00	0.40	0.80	1.30

### 0.68F to 1.0F

Part Number	ØD Max	H Max	L(-) ±0.2	L(+) ±0.2	P ±0.3	T	W ±0.1	W <sub>1</sub> ±0.1
KW-5R5C105-R	21.5	9.00	6.50	5.80	5.00	0.40	0.80	1.30
KW-5R5C684-R	21.5	9.00	6.50	5.80	5.00	0.40	0.80	1.30

## Part Numbering System

KW	-	5	R	5	□	□	□	□	-	R
Series Code	Voltage (V)				Configuration	Capacitance (µF)				RoHS Compliant
	R = Decimal					Value		Multiplier		
	5R5 = 5.5V					Example: 104 = 10 x 10 <sup>4</sup> µF or 0.1F				

### Packaging Information

Standard bulk packaging:  
 KW-5R5C104-R, KW-5R5C224-R, KW-5R5C334-R - 400 units  
 KW-5R5C684-R, KW-5R5C105-R - 500 units

### Part Marking

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

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