

Coin Cell Supercapacitors

KR Series



Features & Benefits:

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

Typical Applications:

- Computer & peripherals
- Telephones
- DSL modems & routers
- Digital radios
- Set top boxes
- White goods & kitchen appliances
- Copiers
- Electric utility meters
- HVAC controls

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 KR series offers a wide range of high capacitance coin cell style products for use in memory & RTC back-up applications. End products include computers, cameras, camcorders, telephones, printers, car stereos, CCTV, set top box and PDP.

| Specifications | |
|-----------------------------|---------------------|
| Working Voltage | 5.5V |
| Surge Voltage | 6.3V |
| Nominal Capacitance Range | 0.1 to 1.5F |
| Capacitance Tolerance | -20% to +80% (20°C) |
| Operating Temperature Range | -25°C to 70°C |

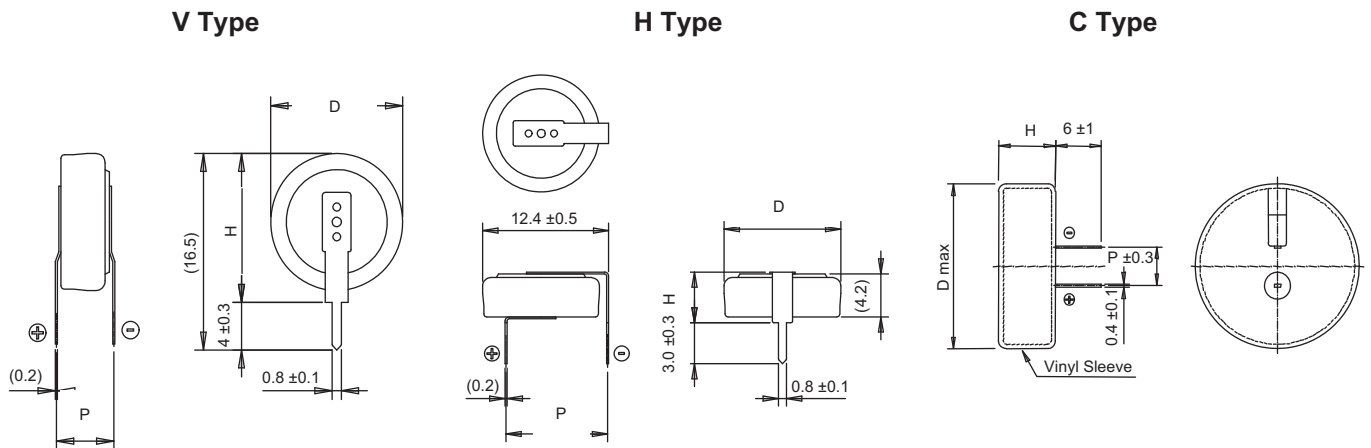
| Standard Products | | | | | | |
|-------------------------|--------------|---|-------------------------|--------|-------------|------------------------------|
| Nominal Capacitance (F) | Part Number | Nominal ESR (Ω) (Equivalent Series Resistance) Measured @ 1kHz | Nominal Dimensions (mm) | | | Typical Mass (grams/1 piece) |
| | | | Diameter | Height | Lead C to C | |
| 0.1 | KR-5R5V104-R | 75 | 11.5 | 12.5 | 5 | 1.4 |
| 0.1 | KR-5R5H104-R | 75 | 11.5 | 5 | 10 | 1.4 |
| 0.1 | KR-5R5C104-R | 75 | 13.5 | 7.5 | 5 | 3.3 |
| 0.22 | KR-5R5V224-R | 75 | 11.5 | 12.5 | 5 | 1.4 |
| 0.22 | KR-5R5H224-R | 75 | 11.5 | 5 | 10 | 1.4 |
| 0.22 | KR-5R5C224-R | 75 | 13.5 | 7.5 | 5 | 3.3 |
| 0.33 | KR-5R5V334-R | 50 | 11.5 | 12.5 | 5 | 1.4 |
| 0.33 | KR-5R5H334-R | 50 | 11.5 | 5 | 10 | 1.4 |
| 0.33 | KR-5R5C334-R | 50 | 13.5 | 7.5 | 5 | 3.3 |
| 0.47 | KR-5R5V474-R | 50 | 11.5 | 12.5 | 5 | 1.4 |
| 0.47 | KR-5R5H474-R | 50 | 11.5 | 5 | 10 | 1.4 |
| 0.47 | KR-5R5C474-R | 50 | 13.5 | 7.5 | 5 | 3.3 |
| 1.0 | KR-5R5V105-R | 30 | 19 | 19.5 | 5 | 4.2 |
| 1.0 | KR-5R5H105-R | 30 | 19 | 6.5 | 20 | 4.2 |
| 1.0 | KR-5R5C105-R | 30 | 21.5 | 7.5 | 5 | 9.1 |
| 1.5 | KR-5R5V155-R | 30 | 19 | 19.5 | 5 | 4.2 |
| 1.5 | KR-5R5H155-R | 30 | 19 | 6.5 | 20 | 4.2 |
| 1.5 | KR-5R5C155-R | 30 | 21.5 | 7.5 | 5 | 9.1 |

| Performance | | |
|---|---|---------------------------------------|
| Parameter | Capacitance Change (% of initial measured value) | ESR (% of initial specified value) |
| Life (1000 hrs @ 70°C @ 5.5Vdc) | ≤ 30 | ≤ 400 |
| Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C) | ≤ 30 | ≤ 400 |

| Dimensions (mm) | | | |
|-----------------|------|------|----|
| Part Number | D | H | P |
| KR-5R5V104-R | 11.5 | 12.5 | 5 |
| KR-5R5H104-R | 11.5 | 5 | 10 |
| KR-5R5C104-R | 13.5 | 7.5 | 5 |
| KR-5R5V224-R | 11.5 | 12.5 | 5 |
| KR-5R5H224-R | 11.5 | 5 | 10 |
| KR-5R5C224-R | 13.5 | 7.5 | 5 |
| KR-5R5V334-R | 11.5 | 12.5 | 5 |
| KR-5R5H334-R | 11.5 | 5 | 10 |
| KR-5R5C334-R | 13.5 | 7.5 | 5 |
| KR-5R5V474-R | 11.5 | 12.5 | 5 |
| KR-5R5H474-R | 11.5 | 5 | 10 |
| KR-5R5C474-R | 13.5 | 7.5 | 5 |
| KR-5R5V105-R | 19 | 19.5 | 5 |
| KR-5R5H105-R | 19 | 6.5 | 20 |
| KR-5R5C105-R | 21.5 | 7.5 | 5 |
| KR-5R5V155-R | 19 | 19.5 | 5 |
| KR-5R5H155-R | 19 | 6.5 | 20 |
| KR-5R5C155-R | 21.5 | 7.5 | 5 |

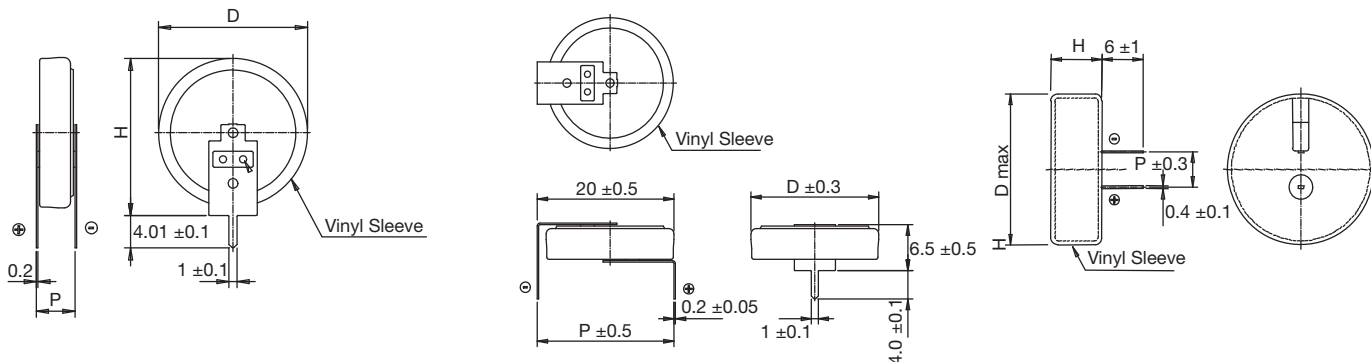
Dimensions - mm

For parts 0.1F to 0.47F



Dimensions - mm

For parts 1.0F to 1.5F



| Part Numbering System | | | | | | | | | |
|-----------------------|------------|---|-----------------------------|---|---|------------------|------------|--|----------------|
| K | R | - | 5 | R | 5 | | | - | R |
| Series Code | Version | | Voltage (V) R is decimal | | Configuration | Capacitance (µF) | | | RoHS Compliant |
| K = Coin Cell | R = Leaded | | 5R5 = 5.5V | | V = Vertical H = Horizontal C = Cylindrical | Value | Multiplier | Example: 474 = 47 x 10 ⁴ µF or 0.47F | |
| | | | | | | | | | |

Packaging Information

Standard packaging: Bulk, 500 units per package.

For 0.1F to 0.47F 500 units per bag.

For 1.0F to 1.5F 100 units per tray, 5 trays per box

Part Marking

Manufacturer
Capacitance (F)
Max. Operating Voltage (V)
Polarity Marking

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