

Supercapacitors

B 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.

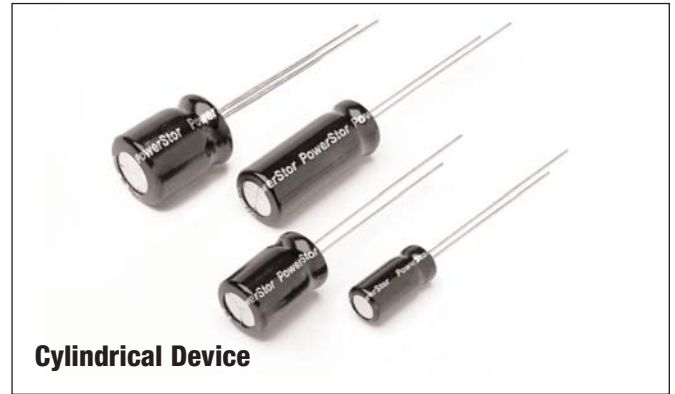
Features & Benefits

- High specific capacitance
- Very low ESR
- Low leakage currents
- Long cycle life
- UL Recognized



Applications

- Main power
- Hybrid battery packs
- Hold-up power
- Pulse power



Cylindrical Device

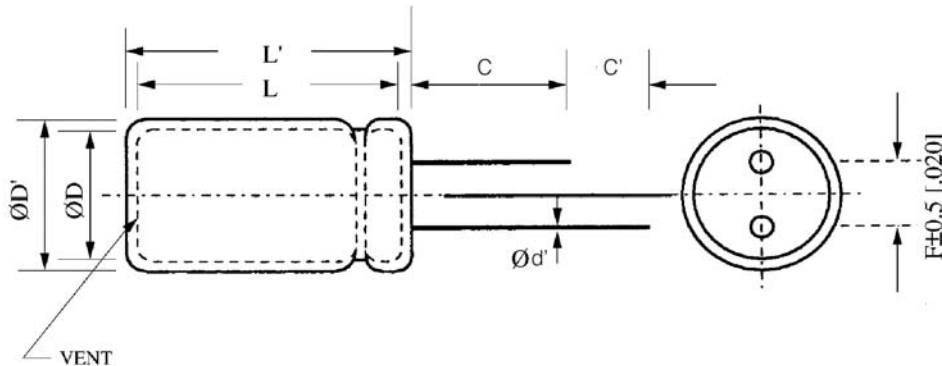
| Specifications | |
|-----------------------------|---------------------|
| Working Voltage | 2.5V |
| Surge Voltage | 3.0V |
| Capacitance | 0.22F to 2.2F |
| Capacitance Tolerance | -20% to +80% (20°C) |
| Operating Temperature Range | -25°C to 70°C |

| Standard Product | | | | | | |
|-------------------------|----------------|---|--|-------------------------|--------|----------------------------|
| Nominal Capacitance (F) | Part Number | Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 100Hz | Nominal Leakage Current (μA) After 72 Hours @ 20°C | Nominal Dimensions (mm) | | Typical Mass (grams/piece) |
| | | | | Diameter | Length | |
| 0.22 | B0510-2R5224-R | 2.00 | 2 | 5 | 11 | 0.54 |
| 1.0 | B0810-2R5105-R | 0.50 | 4 | 8 | 13 | 1.2 |
| 1.5 | B1010-2R5155-R | 0.30 | 7 | 10 | 14 | 1.9 |
| 2.2 | B0820-2R5225-R | 0.20 | 9 | 8 | 20 | 1.5 |

| Performance | | |
|---|---|---------------------------------------|
| Parameter | Capacitance Change (% of initial measured value) | ESR (% of initial specified value) |
| Life (1000 hrs @ 70°C @ 2.5Vdc) | ≤ 30 % | ≤ 300 % |
| Storage - Low and High Temperature (1000 hrs @ -25°C and 70°C) | ≤ 30 % | ≤ 300 % |

| Dimensions (mm) | | | | | | | | |
|-------------------|----------------|------|------|------|--------------|---------------|----------------|-----|
| Part Number | D | D' | L | L' | F | d' | C | C' |
| B0510-2R5224-R | 5.0 | 5.5 | 11.5 | 12.0 | 2.0 | 0.50 | 20.0 | 5.0 |
| B0810-2R5105-R | 8.0 | 8.5 | 13.0 | 13.5 | 3.5 | 0.50 | 20.0 | 5.0 |
| B1010-2R5155-R | 10.0 | 10.5 | 14.3 | 14.8 | 5.0 | 0.60 | 20.0 | 5.0 |
| B0820-2R5225-R | 8.0 | 8.5 | 20.5 | 21.0 | 3.5 | 0.50 | 20.0 | 5.0 |
| Tolerances | Maximum | | | | ± 0.5 | ± 0.02 | Minimum | |

Note: Longer lead is positive.



| Part Numbering System | | | | | | | | | | |
|-----------------------|-----------------|---|--------|---|---|--------------|---|---|------------|---|
| B | □ | □ | □ | □ | - | 2 | R | 5 | □ | □ |
| Series Code | Dimensions (mm) | | | | | Voltage (V) | | Capacitance (μ F) | | |
| | Diameter | | Length | | | R is Decimal | | Value | Multiplier | |
| B Series | | | | | | 2R5 = 2.5V | | Example: 155 = 15 x 10 ⁵ μ F or 1.5F | | |

Packaging Information

Packaging:

- Standard packaging: Bulk, 100 units per bag.
- Larger bulk packages available on request.

Part Marking

- Manufacturer
- Capacitance (F)
- Max Operating Voltage (V)
- Series Code (or part number)
- Polarity

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