



Supercapacitors

HV Series

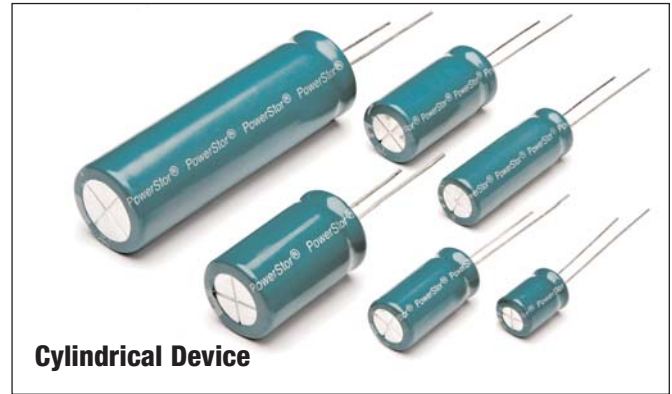


Description

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

- Ultra low ESR for high power density
- Large capacitance for high energy density
- UL Recognized 



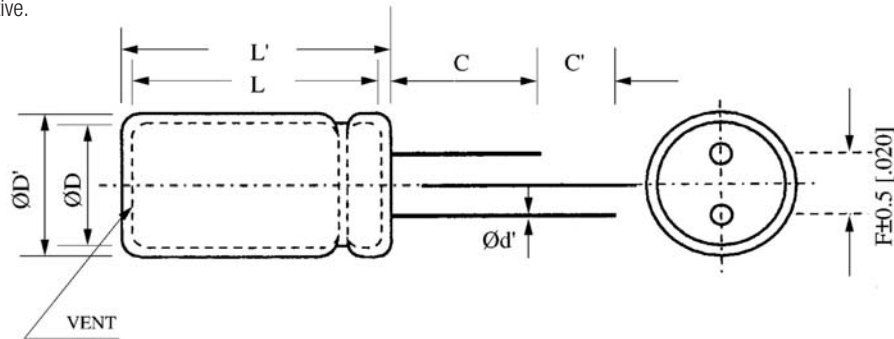
| Specifications | |
|--------------------------------------|---|
| Working Voltage | 2.7V |
| Surge Voltage | 3.0V |
| Capacitance | 1.0F to 100F |
| Capacitance Tolerance | -10% to +30% (20°C) |
| Operating Temperature Range | -40°C to 65°C |
| Extended Operating Temperature Range | -40°C to 85°C (with linear voltage derating to 2.1V @ 85°C) |

| Standard Product | | | | | | | |
|------------------|-----------------|---|-------|---|-------------------------|--------|----------------------------|
| Capacitance (F) | Part Number | Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ | | Nominal Leakage Current (μA) After 72 Hrs. @ 20°C | Nominal Dimensions (mm) | | Typical Mass (grams/piece) |
| | | 1kHz | 100Hz | | Diameter | Length | |
| 1 | HV0810-2R7105-R | 0.15 | 0.20 | 10 | 8 | 10 | 1.2 |
| 3 | HV0820-2R7305-R | 0.060 | 0.080 | 15 | 8 | 20 | 1.4 |
| 5 | HV1020-2R7505-R | 0.038 | 0.040 | 20 | 10 | 20.5 | 2.3 |
| 6 | HV0830-2R7605-R | 0.038 | 0.040 | 20 | 8 | 30 | 2.1 |
| 10 | HV1030-2R7106-R | 0.032 | 0.034 | 23 | 10 | 30 | 3.2 |
| 15 | HV1325-2R7156-R | 0.028 | 0.030 | 23 | 13 | 26 | 4.5 |
| 25 | HV1625-2R7256-R | 0.025 | 0.027 | 45 | 16 | 25 | 7.3 |
| 35 | HV1635-2R7356-R | 0.022 | 0.024 | 51 | 16 | 35 | 9.3 |
| 60 | HV1840-2R7606-R | 0.016 | 0.018 | 110 | 18 | 40 | 13 |
| 100 | HV1860-2R7107-R | 0.010 | 0.012 | 260 | 18 | 60 | 20 |

| Performance | | |
|---|--|---------------------------------------|
| Parameter | Capacitance Change (% of initial specified value) | ESR (% of initial specified value) |
| Life (1000 hrs @ 65°C @ 2.7Vdc) | ≤ 30 % | ≤ 200 % |
| Storage - Low and High Temperature (1000 hrs @ -40°C and 85°C) | ≤ 30 % | ≤ 200 % |

| Dimensions (mm) | | | | | | | | |
|-------------------|----------------|------|------|------|--------------|---------------|----------------|-----|
| Part Number | D | D' | L | L' | F | d | C | C' |
| HV0810-2R7105-R | 8.0 | 8.5 | 13.0 | 13.5 | 3.5 | 0.50 | 20.0 | 5.0 |
| HV0820-2R7305-R | 8.0 | 8.5 | 20.5 | 21.0 | 3.5 | 0.50 | 20.0 | 5.0 |
| HV1020-2R7505-R | 10.0 | 10.5 | 21.8 | 22.3 | 5.0 | 0.60 | 20.0 | 5.0 |
| HV0830-2R7605-R | 8.0 | 8.5 | 30.5 | 31.0 | 3.5 | 0.60 | 20.0 | 5.0 |
| HV1030-2R7106-R | 10.0 | 10.5 | 31.0 | 31.5 | 5.0 | 0.60 | 20.0 | 5.0 |
| HV1325-2R7156-R | 13.0 | 13.5 | 27.9 | 28.4 | 5.0 | 0.60 | 20.0 | 5.0 |
| HV1625-2R7256-R | 16.0 | 16.5 | 27.9 | 28.4 | 7.5 | 0.80 | 20.0 | 5.0 |
| HV1635-2R7356-R | 16.0 | 16.5 | 37.5 | 38.0 | 7.5 | 0.80 | 20.0 | 5.0 |
| HV1840-2R7606-R | 18.0 | 18.5 | 41.5 | 42.0 | 7.5 | 0.80 | 20.0 | 5.0 |
| HV1860-2R7107-R | 18.0 | 18.5 | 59.5 | 60.5 | 7.5 | 0.80 | 20.0 | 5.0 |
| Tolerances | Maximum | | | | ± 0.5 | ± 0.02 | Minimum | |

Note: Longer lead is positive.



| Part Numbering System | | | | | | | | | | |
|-----------------------|-----------------|--------|---|---|-----------------------------|------------------|------------|---|---|---|
| HV | □ | □ | □ | □ | - | □ | R | □ | □ | □ |
| Series Code | Dimensions (mm) | | | | Voltage (V) R is Decimal | Capacitance (µF) | | | | |
| | Diameter | Length | | | | Value | Multiplier | | | |
| HV Series | | | | | | 2R7 = 2.7V | | | | Example: 106 = 10 x 10 ⁶ µF or 10F |

Packaging Information

Packaging:

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

Part Marking

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

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