PowerStor®

Supercapacitors

HV Series

HALOGEN HF FREE

Pb

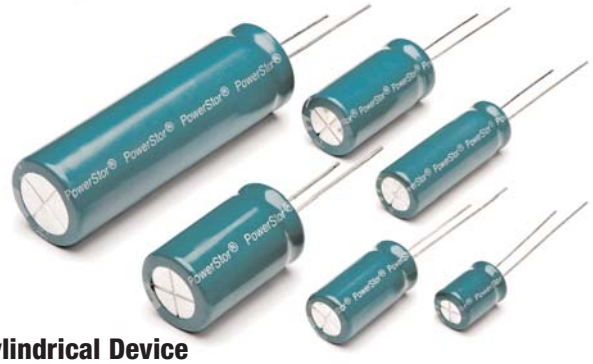
RoHS 2002/95/EC

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



Cylindrical Device

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

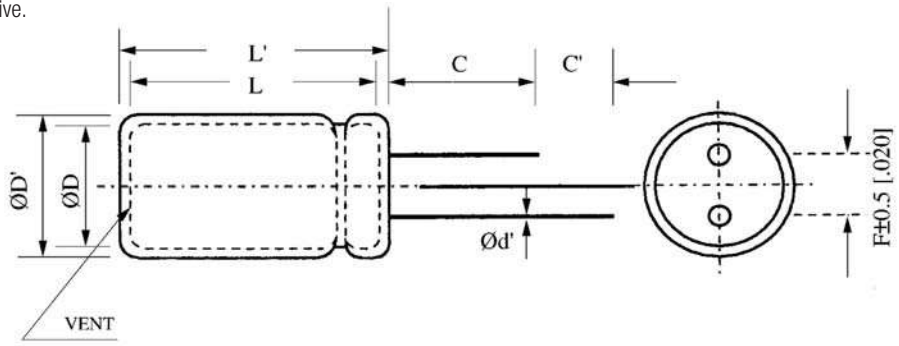
Capacitance (F)	Part Number	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 1kHz	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 100Hz	Nominal Leakage Current (μA) After 72 Hrs. @ 20°C	Nominal Dimensions (mm) Diameter	Nominal Dimensions (mm) Length	Typical Mass (grams/piece)
1	HV0810-2R7105-R	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	98	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	61.0	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)			
									Value		Multiplier	
HV Series	Diameter		Length			2R7 = 2.7V			Example: 106 = 10 x 10^6μF 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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