PowerStor

Supercapacitors

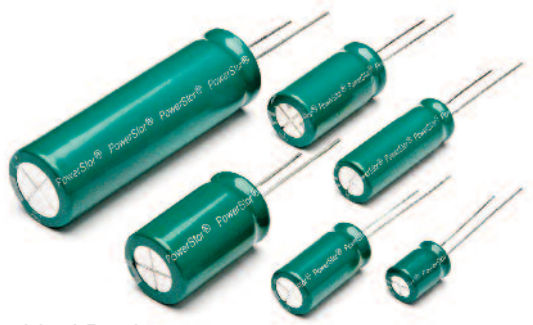
HV Series

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



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

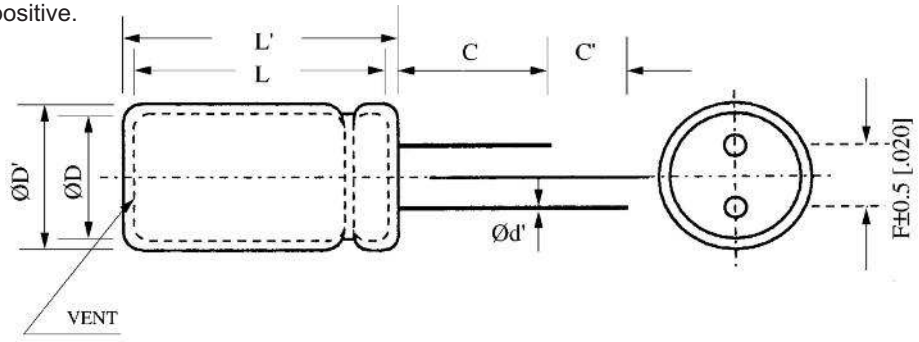
Capacitance (F)	Part Number	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 1kHz	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 100Hz	Nominal Leakage Current (µA) After 72 Hrs. @ 20°C	Nominal Dimensions (mm) Diameter	Nominal Dimensions (mm) Length	Typical Mass (grams/piece)
1	HV0810-2R7105-R	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	HV1245-2R7356-R	0.018	0.020	51	12.5	45	8
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 value)	ESR (% of maximum 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	0.50	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
HV1245-2R7356-R	12.5	12.9	48.0	49.0	5.0	0.60	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)		
								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

North America
Cooper Bussmann
1225 Broken Sound Parkway NW
Suite F
Boca Raton, FL 33487-3533
Tel: 1-561-998-4100
Fax: 1-561-241-6640
Toll Free: 1-888-414-2645

Cooper Bussmann
P.O. Box 14460
St. Louis, MO 63178-4460
Tel: 1-636-394-2877
Fax: 1-636-527-1607

Europe
Cooper Bussmann
Cooper (UK) Limited
Burton-on-the-Wolds
Leicestershire • LE12 5TH UK
Tel: +44 (0) 1509 882 737
Fax: +44 (0) 1509 882 786

Cooper Bussmann
Avda. Santa Eulalia, 290
08223
Terrassa, (Barcelona), Spain
Tel: +34 937 362 812
+34 937 362 813
Fax: +34 937 362 719

Asia Pacific
Cooper Bussmann
1 Jalan Kilang Timor
#06-01 Pacific Tech Centre
Singapore 159303
Tel: +65 278 6151
Fax: +65 270 4160

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