

Supercapacitors

HB 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



Specifications

Working Voltage	2.5V
Surge Voltage	3.0V
Capacitance	3.0F to 110F
Capacitance Tolerance	-10% to +30% (20°C)
Operating Temperature Range	-25°C to 70°C
Extended Operating Temperature Range	-25°C to 85°C (with linear voltage derating to 2.1V @ 85°C)

Standard Product

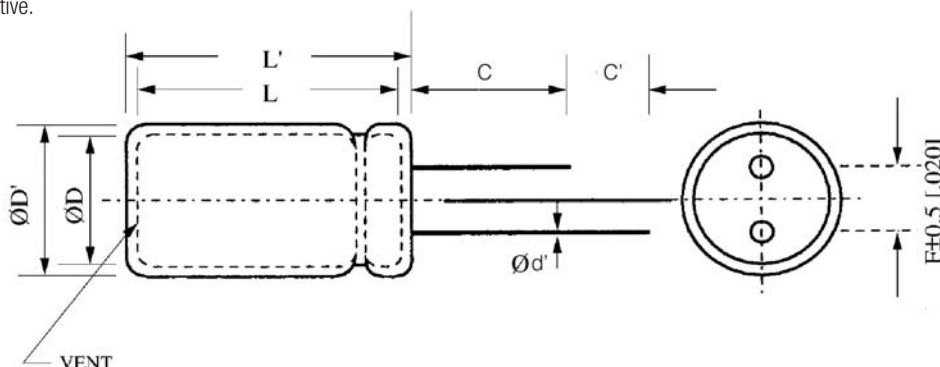
Capacitance (F)	Part Number	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @		Nominal Leakage Current (μ A) After 72 Hrs. @ 20°C	Nominal Dimensions (mm)		Typical Mass (grams/piece)
		1kHz	100Hz		Diameter	Length	
3	HB0820-2R5305-R	0.155	0.160	7	8	20	1.5
5	HB1020-2R5505-R	0.095	0.100	11	10	20.5	2.4
6	HB0830-2R5605-R	0.095	0.100	11	8	30	2.4
10	HB1030-2R5106-R	0.060	0.060	20	10	30	3.5
15	HB1325-2R5156-R	0.045	0.050	22	13	26	4.8
25	HB1625-2R5256-R	0.036	0.040	28	16	25	8.2
35	HB1635-2R5356-R	0.028	0.030	32	16	35	9.8
60	HB1840-2R5606-R	0.023	0.025	47	18	40	13.8
110	HB1860-2R5117-R	0.018	0.020	180	18	60	22

Performance

Parameter	Capacitance Change (% of initial Specified value)	ESR (% of initial specified value)
Life (1000 hrs @ 70°C @ 2.5Vdc)	≤ 30 %	≤ 200 %
Storage - Low and High Temperature (1000 hrs @ -25°C and 85°C)	≤ 30 %	≤ 200 %

Dimensions (mm)								
Part Number	D	D'	L	L'	F	d'	C	C'
HB0820-2R5305-R	8.0	8.5	20.5	21.0	3.5	0.50	20.0	5.0
HB1020-2R5505-R	10.0	10.5	21.8	22.3	5.0	0.60	20.0	5.0
HB0830-2R5605-R	8.0	8.5	30.5	31.0	3.5	0.60	20.0	5.0
HB1030-2R5106-R	10.0	10.5	31.0	31.5	5.0	0.60	20.0	5.0
HB1325-2R5156-R	13.0	13.5	27.9	28.4	5.0	0.60	20.0	5.0
HB1625-2R5256-R	16.0	16.5	27.9	28.4	7.5	0.80	20.0	5.0
HB1635-2R5356-R	16.0	16.5	37.5	38.0	7.5	0.80	20.0	5.0
HB1840-2R5606-R	18.0	18.5	41.5	42.0	7.5	0.80	20.0	5.0
HB1860-2R5117-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											
HB	<div></div>	<div></div>	<div></div>	<div></div>	—	<div></div>	R	<div></div>	<div></div>	<div></div>	<div></div>
Series Code	Dimensions (mm)					Voltage (V) R is Decimal		Capacitance (μF)			
								Value		Multiplier	
HB Series	Diameter		Length			2R5 = 2.5V		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

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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