PowerStor™

Supercapacitors

HB Series

HALOGEN HF FREE Pb RoHS

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	2.5V
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

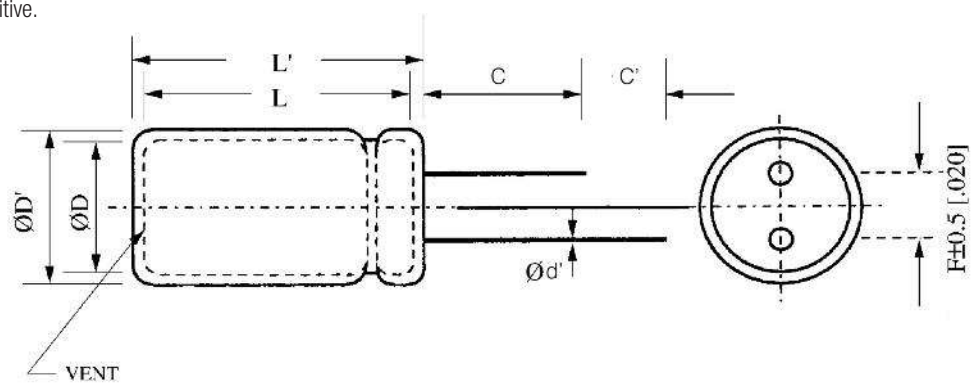
Capacitance (F)	Part Number	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 1kHz	Maximum ESR (Ω) (Equivalent Series Resistance) Measured @ 100Hz	Nominal Leakage Current (μA) After 72 Hrs. @ 20°C	Nominal Dimensions (mm) Diameter	Nominal Dimensions (mm) Length	Typical Mass (grams/piece)
3	HB0820-2R5305-R	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 value)	ESR (% of maximum 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	0.50	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	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												
HB					–		R					
Series Code	Dimensions (mm)				Voltage (V) R is Decimal				Capacitance (μF)			
									Value		Multiplier	
HB Series	Diameter		Length		2R5 = 2.5V				Example: 106 = 10 x 10^6μF 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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