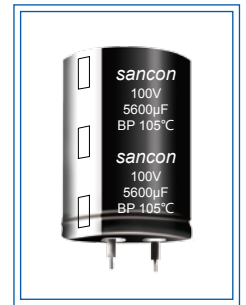


BP (CD297)

Features

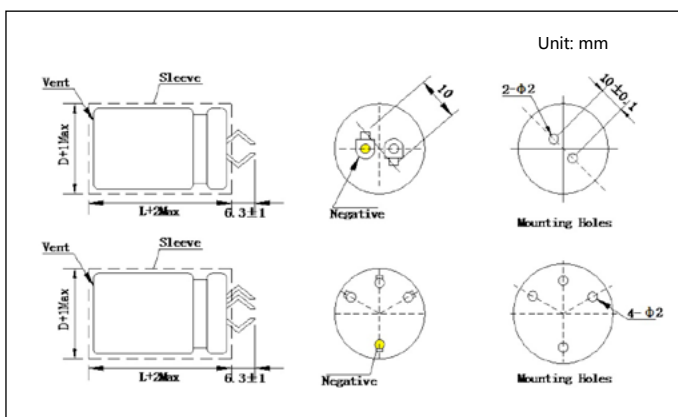
- High Ripple Current, load life of 5000 hours at 105°C.



Specifications

Item	Performance Characteristics	
Operating Temperature Range	-40~+105°C	-25~+105°C
Rated Voltage Range	10~100V	160~500V
Nominal Capacitance Range	68~56000µF	
Capacitance Tolerance	±20%(120Hz,+20°C)	
Leakage Current	I ≤ 0.01CV or 1.5mA (at 20°C , after 5 minutes , Whichever is smaller)	
Dissipation Factor (tgδ,+20°C ,120Hz)	U _R (V)	10 16 25 35 50 63 80 100 160~400 450~500
	tgδ	0.55 0.50 0.45 0.40 0.35 0.30 0.25 0.20 0.15 0.20
Temperature Characteristics (Impedance ratio at 120Hz)	U _R (V)	10~100 160~250 315~450
	Z -25°C /+20°C	4 3 8
	Z -40°C /+20°C	15 - -
Load Life	After applying rated voltage with specified ripple current for 5000 hours at +105°C and then resumed 24 hours: Capacitance change : ±20% of the initial measured value Leakage current : ≤ the initial specified value Dissipation factor: ≤ 200% of the initial specified value	
Shelf Life	After storage for 1000 hours at +105°C ,U _R to be applied for 30 minutes and then resumed 24 hours: Capacitance change : ±15% of the initial measured value Leakage current : ≤ the initial specified value Dissipation factor: ≤ 200% of the initial specified value	

Diagram of Dimensions



Multiplier for Ripple Current

Frequency coefficient

U(V)	Frequency (Hz)				
	50	120	500	1K	≥ 10K
10~100	0.90	1.00	1.05	1.10	1.15
160~250	0.80	1.00	1.20	1.30	1.50
≥ 315	0.80	1.00	1.20	1.25	1.40

Temperature coefficient

Temperature (°C)	+40	+55	+70	+85	+105
Coefficient	2.7	2.5	2.1	1.7	1.0

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120HZ (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
10 1A	13	8200	89	62	1.36	22×25
		10000	73	51	1.65	22×30
		12000	61	43	1.85	22×35
			61	43	1.82	25×25
		15000	49	34	2.12	22×40
			49	34	2.11	25×30
			49	34	2.14	30×25
		18000	41	28	2.4	22×45
			41	28	2.32	25×35
		22000	33	23	2.59	25×40
			33	23	2.73	30×30
		27000	27	19	3.01	25×45
			27	19	3.13	30×35
			27	19	3.05	35×30
		33000	22	16	3.43	25×50
			22	16	3.53	30×40
			22	16	3.49	35×35
39000	19	13	3.78	30×45		
	19	13	3.96	35×40		
47000	16	11	4.58	30×50		
	16	11	4.6	35×45		
56000	13	9	5.06	35×50		
16 1C	20	5600	119	83	1.44	22×25
		6800	98	68	1.66	22×30
		8200	81	57	1.67	25×25
		10000	66	46	2.08	22×35
			66	46	2.07	25×30
		12000	55	39	2.36	22×40
			55	39	2.37	25×35
			55	39	2.33	30×25
		15000	44	31	2.69	22×45
			44	31	2.72	25×40
			44	31	2.54	30×30
		18000	37	26	3.06	25×45
			37	26	3.02	30×35
			37	26	3.09	35×30
		22000	30	21	3.39	25×50
			30	21	3.46	30×40
		27000	25	17	3.88	30×45
25	17		3.85	35×35		
33000	20	14	4.33	30×50		
	20	14	4.33	35×40		
39000	17	12	4.96	35×45		
47000	14	10	5.49	35×50		
25 1E	32	3900	153	107	1.31	22×25
		4700	127	89	1.55	22×30
		5600	107	75	1.77	22×35
			107	75	1.76	25×35
		6800	88	62	2.02	22×40
88	62		1.88	25×30		

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120Hz (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
25 1E	32	8200	73	51	2.27	22×45
			73	51	2.18	25×35
			73	51	2.19	30×25
		10000	60	42	2.56	22×50
			60	42	2.53	25×40
			60	42	2.38	30×30
		12000	50	35	2.79	25×45
			50	35	2.7	30×35
			50	35	2.76	35×30
		15000	40	28	3.13	30×40
		18000	33	23	3.52	30×45
			33	23	3.5	35×35
22000	27	19	3.92	30×50		
	27	19	3.95	35×40		
27000	22	16	4.72	35×50		
35 1V	44	2700	197	138	1.29	22×25
		3300	161	113	1.54	22×30
		3900	136	95	1.77	22×35
			136	95	1.75	25×25
		4700	113	79	2.01	22×40
			113	79	1.97	25×30
		5600	95	66	2.25	22×45
			95	66	2.18	25×35
			95	66	2.08	30×25
		6800	78	55	2.49	22×50
			78	55	2.45	25×40
			78	55	2.28	30×30
		8200	65	45	2.8	25×45
			65	45	2.69	30×35
		10000	53	37	3.04	30×40
			53	37	2.78	35×30
		12000	44	31	3.38	30×45
			44	31	3.3	35×35
15000	35	25	3.38	35×40		
18000	30	21	4.4	35×45		
50 1H	63	1500	310	217	1.21	22×25
		2200	211	148	1.52	22×30
			211	148	1.46	25×25
		2700	172	120	1.77	22×35
			172	120	1.76	25×30
		3300	141	99	1.92	22×40
			141	99	1.92	30×25
		3900	119	83	2.27	22×45
			119	83	2.2	25×35
			119	83	2.19	30×30
		4700	99	69	2.43	25×40
			83	58	2.72	25×45
		5600	83	58	2.58	30×35
			83	58	2.35	35×30
			68	48	3.01	30×40
6800	68	48	2.91	35×35		

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120HZ (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
50 1H	63	8200	57	40	3.63	30×50
			57	40	3.36	35×40
		10000	46	33	3.79	35×45
			12000	39	27	4.06
63 1J	79	1000	398	279	1.1	22×25
		1500	265	186	1.41	22×30
			265	186	1.38	25×25
		1800	221	155	1.62	22×35
			221	155	1.63	25×30
		2200	181	127	1.85	22×40
			181	127	1.80	30×25
		2700	147	103	2.1	22×45
			147	103	2.03	25×35
			147	103	2.01	30×30
		3300	121	84	2.33	25×40
		3900	102	72	2.58	25×45
			102	72	2.46	30×35
			102	72	2.31	35×30
		4700	85	59	2.82	30×40
			85	59	2.77	35×35
		5600	71	50	3.22	30×45
			71	50	3.2	35×40
6800	59	41	3.61	35×45		
8200	49	34	3.94	35×50		
80 1K	100	820	405	283	1.09	22×25
		1000	332	232	1.29	22×30
		1200	277	194	1.48	22×35
			277	194	1.38	25×25
		1500	221	155	1.7	22×40
			221	155	1.74	25×30
		1800	221	155	1.75	30×25
			184	129	1.91	22×45
		1800	184	129	1.86	25×35
			151	106	2.22	25×45
		2200	151	106	2.02	30×30
			123	86	2.38	30×35
		2700	123	86	2.45	35×30
			101	70	2.69	30×40
		3300	101	70	2.6	35×35
			85	60	2.94	30×45
		3900	85	60	3	35×40
			71	49	3.44	35×45
4700	71	49	3.44	35×45		
5600	59	42	3.72	35×50		
100 2A	125	560	474	332	1.01	22×25
		680	390	273	1.19	22×30
		820	324	227	1.33	22×35
			324	227	1.26	25×25
		1000	265	186	1.56	22×40
			265	186	1.52	25×30
		265	186	1.47	30×25	

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120Hz (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
100 2A	125	1200	221	155	1.76	22×45
			221	155	1.76	25×35
			221	155	1.76	30×30
		1500	177	124	2	22×50
			177	124	2.03	25×40
		1800	147	103	2.29	25×45
			147	103	2.19	30×35
			147	103	2.15	35×30
		2200	121	84	2.52	30×40
			121	84	2.48	35×35
		2700	98	69	2.86	30×45
			98	69	2.87	35×40
		3300	80	56	3.25	35×45
		3900	68	48	3.56	35×50
160 2C	200	220	905	633	0.63	22×25
		270	737	516	0.76	22×30
		330	603	422	0.9	22×35
			603	422	0.84	25×25
		390	510	357	0.97	25×30
			510	357	1	30×25
		470	424	296	1.11	22×40
			424	296	1.14	25×35
			424	296	1.17	30×30
		560	355	249	1.26	22×45
		680	293	205	1.44	22×50
			293	205	1.43	25×40
			293	205	1.5	30×35
		820	243	170	1.63	25×45
			243	170	1.66	30×40
			243	170	1.63	35×30
		1000	199	139	1.89	30×45
			199	139	1.89	35×35
		1200	166	116	2.16	30×50
			166	116	2.23	35×40
1500	133	93	2.61	35×45		
1800	111	77	2.97	35×50		
180 2K	225	220	905	633	0.63	22×25
		270	737	516	0.76	22×30
			737	516	0.76	25×25
		330	603	422	0.9	22×35
			603	422	0.9	25×30
		390	510	357	1.03	22×40
			510	357	1.06	25×35
			510	357	1.02	30×25
		470	424	296	1.17	22×45
			424	296	1.17	30×30
		560	355	249	1.32	22×50
			355	249	1.32	25×40
			355	249	1.33	30×35
		680	293	205	1.51	25×45
			293	205	1.49	35×30

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120Hz (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)		
180 2K	225	820	243	170	1.71	25×50		
			243	170	1.74	30×40		
			243	170	1.75	35×35		
		1000	199	139	2.01	30×45		
			199	139	2.07	35×40		
		1200	166	116	2.25	30×50		
			166	116	2.23	35×45		
		1500	133	93	2.76	35×50		
		200 2D	250	180	1106	774	0.57	22×25
				220	905	633	0.7	22×30
270	737			516	0.83	22×35		
	737			516	0.76	25×25		
330	603			422	0.96	22×40		
	603			422	0.9	25×30		
390	510			357	1.06	25×35		
	510			357	1.02	30×25		
470	424			296	1.17	22×45		
	424			296	1.22	25×40		
	424			296	1.17	30×30		
560	355			249	1.39	25×45		
	355			249	1.38	30×35		
680	293			205	1.58	25×50		
	293			205	1.61	30×40		
	293			205	1.49	35×30		
820	243			170	1.85	30×45		
	243			170	1.75	35×35		
1000	199			139	2.11	30×50		
	199			139	2.07	35×40		
1200	166			116	2.38	35×45		
1500	133			93	2.76	35×50		
250 2E	300			150	1327	929	0.52	22×25
				180	1106	774	0.64	22×30
		1106	774		0.62	25×25		
		220	905	633	0.76	22×35		
			905	633	0.76	25×30		
		270	737	516	0.88	22×40		
			737	516	0.9	25×35		
			737	516	0.85	30×25		
		330	603	422	1.01	22×45		
			603	422	1	30×30		
		390	510	357	1.13	22×50		
			510	357	1.13	25×40		
			510	357	1.15	30×35		
		470	424	296	1.29	25×45		
			424	296	1.24	35×30		
		560	355	249	1.45	25×50		
			355	249	1.48	30×40		
			355	249	1.49	35×35		
		680	293	205	1.71	30×45		
			293	205	1.74	35×40		
		820	243	170	1.94	30×50		
		1000	199	139	2.2	35×45		

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120Hz (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
315 2F	365	68	3903	2732	0.32	22×25
		82	3237	2266	0.38	22×30
		100	2654	1858	0.41	25×25
		120	2212	1548	0.48	22×35
			2212	1548	0.49	25×30
		150	1769	1239	0.56	22×40
			1769	1239	0.51	30×25
		180	1474	1032	0.63	22×45
			1474	1032	0.62	25×35
			1474	1032	0.63	30×30
		220	1206	844	0.72	22×50
			1206	844	0.71	25×40
			1206	844	0.74	30×35
		270	983	688	0.81	25×45
			983	688	0.85	30×40
			983	688	0.82	35×30
		330	804	563	0.92	25×50
			804	563	0.9	35×35
		390	681	476	1.04	30×45
			681	476	1.05	35×40
470	565	395	1.15	30×50		
	565	395	1.18	35×45		
560	474	332	1.34	35×50		
350 2V	400	68	3903	2732	0.34	22×25
		82	3237	2266	0.4	22×30
		100	2654	1858	0.47	25×25
		120	2212	1548	0.52	22×35
			2212	1548	0.53	25×30
		150	1769	1239	0.59	22×40
			1769	1239	0.6	25×35
		180	1474	1032	0.68	22×45
			1474	1032	0.7	25×40
			1474	1032	0.71	30×30
		220	1206	844	0.78	22×50
			1206	844	0.82	25×45
			1206	844	0.82	30×35
		270	983	688	0.94	25×50
			983	688	0.93	30×40
			983	688	0.9	35×30
		330	804	563	1.05	30×45
			804	563	1.01	35×35
		390	681	476	1.18	30×50
			681	476	1.13	35×40
470	565	395	1.26	35×45		
560	474	332	1.39	35×50		
400 2G	450	68	3903	2732	0.38	22×30
		82	3237	2266	0.41	25×25
		100	2654	1858	0.46	22×35
			2654	1858	0.48	25×30
			2654	1858	0.48	30×25

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120Hz (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
400 2G	450	120	2212	1548	0.53	22×40
			2212	1548	0.55	25×35
			2212	1548	0.56	30×30
		150	1769	1239	0.63	22×50
			1769	1239	0.65	25×40
		180	1474	1032	0.72	25×45
			1474	1032	0.74	30×35
		220	1206	844	0.79	25×50
			1206	844	0.85	30×40
			1206	844	0.89	35×30
		270	983	688	0.98	30×45
			983	688	0.96	35×35
		330	804	563	1.12	30×50
			804	563	1.12	35×40
		390	681	476	1.27	35×45
		470	565	395	1.33	35×50
450 2W	500	68	3903	2732	0.38	22×30
		82	3237	2266	0.44	22×35
			3237	2266	0.45	25×30
			3237	2266	0.46	30×25
			3237	2266	0.46	30×25
		100	2654	1858	0.5	22×40
			2654	1858	0.52	25×35
		120	2212	1548	0.58	22×50
			2212	1548	0.58	25×40
			2212	1548	0.58	30×30
		150	1769	1239	0.66	25×45
			1769	1239	0.68	30×35
		180	1474	1032	0.74	25×50
			1474	1032	0.77	30×40
			1474	1032	0.77	35×30
		220	1206	844	0.88	30×45
1206	844		0.88	35×35		
270	983	688	0.99	30×50		
	983	688	1.01	35×40		
330	804	563	1.15	35×45		
390	681	476	1.28	35×50		
470	565	394	1.50	35X55		
500 2H	550	47	5647	2823	0.41	22X30
		56	4739	2370	0.47	22X30
		68	3903	1951	0.54	22X35
			3903	1951	0.54	25X30
		82	3237	1618	0.62	22X40
			3237	1618	0.62	25X35
		100	2654	1327	0.67	22X45
			2654	1327	0.67	25X40
			2654	1327	0.67	30X30
		120	2212	1106	0.77	25X50
			2212	1106	0.74	25X40
			2212	1106	0.77	30X35
			2212	1106	0.80	35X30
		150	1769	885	0.82	25X45
			1769	885	0.85	30X40
			1769	885	0.67	35X30
1769	885		0.85	35X35		

Standard Size

Rated Voltage (V _{dc})	Surge Voltage (V _{dc})	Rated Capacitance (μF)	Max ESR 20°C 120Hz (mΩ)	Type ESR 20°C 120HZ (mΩ)	Rated ripple current 105°C 120Hz (Arms)	Size ΦD×L (mm)
500 2H	550	180	1474	737	0.98	25X50
			1474	737	1.01	30X45
		220	1206	603	1.12	30X50
			1206	603	0.94	35X35
			1206	603	1.12	35X40
		270	983	492	1.25	30X50
			983	492	1.25	35X40
		330	804	402	1.36	35X45
		390	681	340	1.54	35X50
		470	565	282	1.69	35X60