HITANO
ENTERPRISE CORP. ®

Data Sheet

Customer :

Product : Conductive Polymer Aluminum Solid Electrolytic Capacitor
Radial Type, Standard, 105℃ 2,000Hours – HPB Series

Size : 6.3x6mm ~ 10x16mm

Issued Date : 01-Sep.-2025

Edition : Ver.1

Record of change

Date	Ver.	Description	Page

HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1st Road, New Taipei Industrial Park,
New Taipei City, TAIWAN, R.O.C.
Tel: +886 2 2299 1331 (Rep.)
Fax: +886 2 2298 2466, 2298 2969

Prepared by	Checked by	Approved by	Accepted by (customer)
01-Sep.-2025	01-Sep.-2025	01-Sep.-2025	
Randy Yu	***Michelle Lin***	***Arthur Su***	

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

Radial Lead, 105℃ Standard

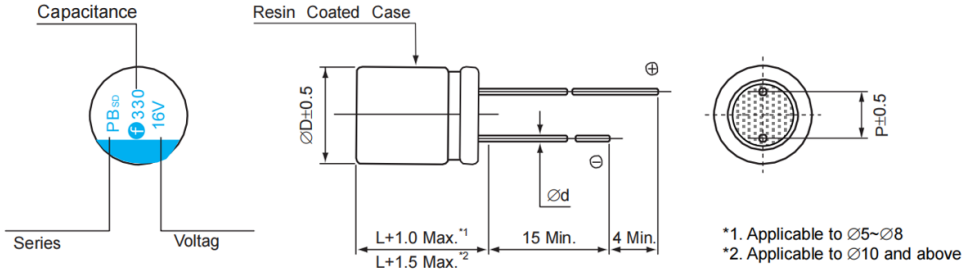
- Low ESR & high ripple current capability
- Endurance: 2,000 hours at 105℃
- Rated Voltage：2.5V ~ 50V
- Rated capacitance：22 ~ 3,900 μF

■SPECIFICATIONS

Item	Performance Characteristics	
Operating Temperature range	-55 + 105℃	
Rated Voltage Range	2.5V ~ 50V	
Capacitance Tolerance	± 20% (at 120 Hz/ 20℃)	
Surge Voltage	Rated Voltage x 1.15	
Leakage Current	Within the specified value as in standard rating	
Dissipation Factor (tan δ)	0.12 or less, less than or equal to the specified value at 20℃ and 120Hz	
Temperature Characteristics (Impedance ratio at 100 KHz)	Z (-25℃) / Z (+20℃)	≤ 1.15
	Z (-55℃) / Z (+20℃)	≤ 1.25
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 105℃.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Bias Humidity Test	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjecting them at 60℃, 90 to 95% RH for 1,000 hours.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Surge Voltage Test	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltage specified At 105℃ for 30 seconds through a protective resistor (R=1KΩ) and discharge for 5 minutes 30 seconds.	
	Capacitance change	≤ ± 20% of the initial value
	D. F. (Tan δ)	≤ 150% of initial specified value
	ESR	≤ 150% of initial specified value
	Leakage current	Initial specified value or less
Failure Rate	0.5% per 1,000 hours maximum (Confidence level 60% at 105℃)	

※ In case of any doubt arises, measure the leakage current after voltage applied for 120 minutes at 105℃.

■ Dimension



Unit : mm

ØD	6.3	8	10
Ød ± 0.05	0.5/0.6	0.6	0.6
P	2.5	3.5	5.0
α (max)	1.0	1.0	1.5

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■ Part Numbering (example: 330 µF 16V 8x8mm)

H P B	3 3 1	M	1 C	R	B	D	0 8 0	B	P	0 0
SERIES	CAPACITANCE	TOL.	W.V.	TYPE	LEAD	DIA.	LENGTH	PRINTING COLOR	RUBBER	LEAD PROCESS

■ Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (µF)	Case Size D x L (mm)	tan δ	Leakage Current (µA)	ESR (mΩ max./ 20℃ 100KHz to 300KHz)	Rated ripple current (mA rms/105℃,100KHz)
2.5 (0E)	560	6.3 x 6	0.12	280	13	3,600
	820	6.3 x 8	0.12	410	7	5,900
		8 x 8	0.12	410	7	6,100
	1000	6.3 x 8	0.12	500	7	5,600
	1500	8 x 8	0.12	750	7	6,100
	2200	8 x 12	0.12	1,100	8	6,700
	3900	10 x 12	0.12	1,950	8	7,000
4 (0G)	330	6.3 x 6	0.12	264	22	2,200
	560	6.3 x 8	0.12	448	7	5,000
	820	8 x 8	0.12	656	6	6,100
	1200	8 x 12	0.12	960	7	5,700
	2200	10 x 12	0.12	1,760	7	6,100
6.3 (0J)	330	6.3 x 6	0.12	415	15	3,200
	470	6.3x 8	0.12	592	8	5,000
	560	6.3x 8	0.12	705	8	5,000
	680	6.3 x 8	0.12	856	9	5,900
	1000	6.3 x 11	0.12	1,260	10	5,100
		8 x 8	0.12	1,260	8	5,700
	1200	6.3 x 14	0.12	1,512	8	5,600
		8 x 12	0.12	1,512	9	5,900
	1500	8 x 12	0.12	1,890	7	5,700
	2200	10 x 12	0.12	2,772	8	6,600
10 (1A)	220	6.3 x 6	0.12	440	25	2,500
	330	6.3 x 8	0.12	660	15	4,500
		8 x 8	0.12	660	12	4,620
	470	6.3 x 8	0.12	940	13	4,800
	680	8 x 8	0.12	1,360	11	5,100
	1000	8 x 12	0.12	2,000	10	5,800
	1500	10 x 12	0.12	3,000	9	6,200
	2200	10 x 12	0.12	4,400	9	6,500
16 (1C)	100	6.3 x 6	0.12	320	16	3,250
	220	6.3 x 8	0.12	704	12	4,500
	270	6.3 x 8	0.12	864	12	4,500
	330	6.3 x 8	0.12	1,056	12	4,500
		8 x 8	0.12	1,056	10	4,800
	470	6.3 x 11	0.12	1,504	10	5,000
		8 x 8	0.12	1,504	12	4,600
		8 x 12	0.12	1,504	10	5,200
	560	8 x 12	0.12	1,792	10	5,200
	680	8 x 12	0.12	2,176	10	5,200
	820	8 x 12	0.12	2,624	11	6,500
		8 x 16	0.12	2,624	8	7,000
	1000	6.3 x 14	0.12	3,200	11	5,400
		8 x 12	0.12	3,200	10	6,500
		10 x 12	0.12	3,200	10	6,100
	1500	10 x 12	0.12	4,800	10	6,100

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

■ Standard Products Table

Rated voltage (V.DC)	Rated Capacitance (μF)	Case Size D x L (mm)	tan δ	Leakage Current (μA)	ESR (mΩ max./ 20℃ 100KHz to 300KHz)	Rated ripple current (mA rms/105℃,100KHz)
25 (1E)	100	6.3 x 6	0.12	500	49	1,300
	220	6.3 x 8	0.12	1,100	38	2,200
		6.3 x 11	0.12	1,100	34	2,500
	330	8 x 12	0.12	1,650	23	3,600
	470	8 x 12	0.12	2,350	22	3,800
	680	6.3 x 14	0.12	3,400	28	3,200
		8 x 12	0.12	3,400	25	3,800
		10 x 12	0.12	3,400	21	4,200
	1000	8 x 16	0.12	5,000	10	5,800
		10 x 12	0.12	5,000	14	5,000
	1500	10 x 16	0.12	7,500	10	5,800
35 (1V)	47	6.3 x 6	0.12	329	50	1,300
	100	6.3 x 8	0.12	700	40	2,000
	120	6.3 x 11	0.12	840	34	2,500
	150	8 x 8	0.12	1,050	25	3,000
	220	8 x 12	0.12	1,540	24	3,600
	270	6.3 x 14	0.12	1,890	24	3,100
	330	10 x 12	0.12	2,310	22	4,100
	470	10 x 12	0.12	3,290	14	4,800
	680	10 x 16	0.12	4,760	12	5,500
50 (1H)	22	6.3 x 6	0.12	220	55	1,200
	33	6.3 x 8	0.12	330	45	1,800
	47	6.3 x 11	0.12	470	40	2,100
	68	8 x 12	0.12	680	29	3,300
	100	8 x 12	0.12	1,000	27	3,600
	120	10 x 12	0.12	1,200	29	3,400
	150	10 x 12	0.12	1,500	27	3,600
	220	10 x 12	0.12	2,200	23	4,000
	330	10 x 16	0.12	3,300	18	4,700

■ Frequency coefficient of allowable ripple current

Frequency	120 Hz ≤ f < 1 KHz	1 KHz ≤ f < 10 KHz	10 KHz ≤ f < 100 KHz	100 KHz ≤ f ≤ 300 KHz
Coefficient	0.05	0.30	0.70	1.00