

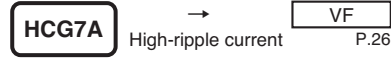
HCG7A Series

Useful of 4,000 hours at 85°C

- Conform RoHS

Features

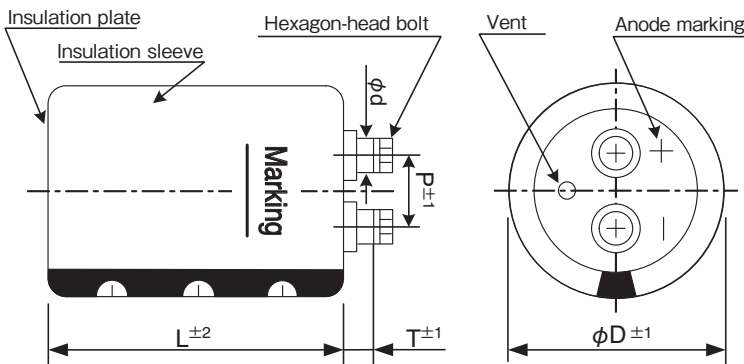
- Low voltage standard product.



Product Specifications

Items	Specifications
Temperature range	-25°C ~ +85°C
Rated voltage	6.3 ~ 100V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
Leakage current	0.01CV (µA) or 5 mA, whichever is smaller or less (20°C, after 5 minutes) [C = nominal capacitance (µF), V = rated voltage (V)]
Dissipation factor	Less than the value specified in the standard products table. (20°C, 120Hz)
Permissible ripple current	As specified in the standard products table. (40°C, 120Hz)
Endurance	After the rated voltage with specified ripple current is applied at 85°C for 2,000 hours : Capacitance change : Within ±15% of the initial value measured Dissipation factor :175% or less than the initial value specified Leakage current :Less than or equal to the initial value specified
Shelf life	The following specification shall be meet when the capacitor are restored to 20°C after storage of 500 hours at 85°C with no voltage applied. Before the measurement, the capacitor shall be preconditioned by applying the voltage treatment according to Item 4.1 of JIS C 5101-4. Capacitance change : Within ±15% of the initial value measured Dissipation factor :175% or less than the initial value specified Leakage current :Less than or equal to the initial value specified
Others	JIS C 5101-4

Dimensions



(unit : mm)

φD	P	T	φd	Hexagon-head bolt	Cap material
36	12.7	6.5	8.0	M5×10	Phenol resin
51	22.0	5.5	10.0	M5×10	Phenol resin
64	28.6	5.5	10.0	M5×10	Phenol resin
77	31.5	5.0	10.0	M5×10	Phenol resin

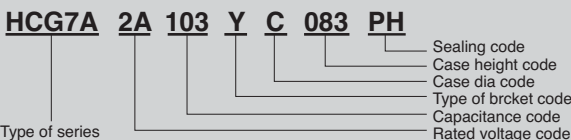
Ripple current correction coefficient

Temperature (°C)	40	60	70	85	
Correction coefficient	1.0	0.81	0.62	0.37	
Frequency (Hz)	50/60	120	300	1K	≥10K
Correction coefficient	0.8	1.0	1.1	1.3	1.4

Terminal permissible currents: 60Arms for M5.
Please use this type of capacitor at a terminal current below the permissible.

Product code

(Example) HCG7A Series 100V 10,000µF±20%



Refer to page 21 for product code.

Bracket

- Refer to page 22-23 for shapes and dimensions.
- Product names in the Standard Products Table correspond to the bracket for Type Y (Type I for φ36 only), but Type I bracket may be used (Type of bracket code = I).
- If bracket are not necessary, enter "N" for the type of bracket code.
- Bracket will be delivered separately.

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μF)	Case size φD×L(mm)	tanδ 20°C, 120Hz	Ripple current (Arms) 40°C, 120Hz	ESR(typ.) (mΩ) 20°C, 100Hz	Z max (mΩ) 20°C, 10kHz	ESL(typ.) (nH)	Product name
6.3	47,000	36×53	1.00	13.4	47	40	18	HCG7A0J473IA053PH
	68,000	36×65	1.20	14.8	33	30	18	HCG7A0J683IA065PH
	100,000	36×83	1.20	19.7	22	22	18	HCG7A0J104IA083PH
	150,000	51×83	1.40	25.6	15	16	21	HCG7A0J154YC083PH
	220,000	51×100	1.40	33.5	11	12	21	HCG7A0J224YC100PH
	330,000	64×100	1.50	43.6	8	9	22	HCG7A0J334YD100PH
	470,000	64×121	1.80	50.8	7	8	22	HCG7A0J474YD121PH
680,000	77×121	2.90	54.4	5	7	24	HCG7A0J684YE121PH	
10	33,000	36×53	0.90	11.9	25	26	18	HCG7A1A333IA053PH
	47,000	36×65	0.90	15.2	18	19	18	HCG7A1A473IA065PH
	68,000	36×83	1.20	20.3	13	14	18	HCG7A1A683IA083PH
	100,000	36×121	1.20	25.0	11	12	18	HCG7A1A104IA121PH
	150,000	51×83	1.40	27.6	7	7	21	HCG7A1A154YC083PH
	220,000	51×121	1.50	37.6	5	6	21	HCG7A1A224YC121PH
	330,000	64×121	1.80	46.5	5	6	22	HCG7A1A334YD121PH
470,000	77×121	2.30	52.0	4	6	24	HCG7A1A474YE121PH	
16	22,000	36×53	0.80	11.2	25	26	18	HCG7A1C223IA053PH
	33,000	36×65	0.80	14.8	17	18	18	HCG7A1C333IA065PH
	47,000	36×83	0.80	19.6	12	13	18	HCG7A1C473IA083PH
	68,000	36×121	1.10	27.7	11	12	18	HCG7A1C683IA121PH
	100,000	51×83	1.10	29.4	8	8	21	HCG7A1C104YC083PH
	150,000	51×121	1.20	34.0	5	6	21	HCG7A1C154YC121PH
	220,000	64×100	1.40	39.7	4	6	22	HCG7A1C224YD100PH
330,000	77×121	1.80	49.2	4	6	24	HCG7A1C334YE121PH	
25	22,000	36×65	0.50	12.1	22	23	18	HCG7A1E223IA065PH
	33,000	36×83	0.90	14.2	15	16	18	HCG7A1E333IA083PH
	47,000	36×121	0.90	19.8	10	11	18	HCG7A1E473IA121PH
	68,000	51×100	0.90	25.1	7	8	21	HCG7A1E683YC100PH
	100,000	51×121	0.90	28.5	6	6	21	HCG7A1E104YC121PH
	150,000	64×100	1.20	34.7	5	6	22	HCG7A1E154YD100PH
	220,000	64×144	1.20	48.9	4	5	22	HCG7A1E224YD144PH
330,000	77×144	1.40	52.7	4	5	24	HCG7A1E334YE144PH	
35	10,000	36×53	0.40	9.6	29	31	18	HCG7A1V103IA053PH
	15,000	36×65	0.45	10.7	19	20	18	HCG7A1V153IA065PH
	22,000	36×83	0.45	13.4	14	15	18	HCG7A1V223IA083PH
	33,000	36×121	0.50	19.4	12	13	18	HCG7A1V333IA121PH
	47,000	51×83	0.50	22.5	8	9	21	HCG7A1V473YC083PH
	68,000	51×100	0.70	27.6	7	8	21	HCG7A1V683YC100PH
	100,000	64×100	1.00	29.5	6	7	22	HCG7A1V104YD100PH
150,000	64×144	1.00	41.4	5	7	22	HCG7A1V154YD144PH	
220,000	77×144	1.20	46.8	5	7	24	HCG7A1V224YE144PH	
50	6,800	36×53	0.35	8.8	44	39	18	HCG7A1H682IA053PH
	10,000	36×65	0.35	11.6	30	28	18	HCG7A1H103IA065PH
	15,000	36×83	0.35	12.7	20	20	18	HCG7A1H153IA083PH
	22,000	36×121	0.40	18.2	14	15	18	HCG7A1H223IA121PH
	33,000	51×83	0.40	20.3	13	14	21	HCG7A1H333YC083PH
	47,000	51×100	0.50	25.9	11	12	21	HCG7A1H473YC100PH
	68,000	64×100	0.70	32.2	8	9	22	HCG7A1H683YD100PH
100,000	64×144	0.70	36.8	6	7	22	HCG7A1H104YD144PH	
150,000	77×144	0.90	37.8	5	7	24	HCG7A1H154YE144PH	
63	6,800	36×53	0.20	10.2	38	35	18	HCG7A1J682IA053PH
	10,000	36×83	0.30	12.8	28	28	18	HCG7A1J103IA083PH
	15,000	36×100	0.35	15.1	21	22	18	HCG7A1J153IA100PH
	22,000	51×83	0.40	20.9	13	14	21	HCG7A1J223YC083PH
	33,000	51×100	0.40	23.6	10	11	21	HCG7A1J333YC100PH
	47,000	64×100	0.40	32.1	8	9	22	HCG7A1J473YD100PH
	68,000	64×144	0.50	37.2	7	8	22	HCG7A1J683YD144PH
100,000	77×144	0.70	41.1	7	8	24	HCG7A1J104YE144PH	
80	4,700	36×53	0.15	10.4	32	30	18	HCG7A1K472IA053PH
	6,800	36×83	0.22	12.1	22	23	18	HCG7A1K682IA083PH
	10,000	36×100	0.22	16.0	15	16	18	HCG7A1K103IA100PH
	15,000	51×83	0.30	20.7	10	11	21	HCG7A1K153YC083PH
	22,000	51×100	0.30	23.5	9	10	21	HCG7A1K223YC100PH
	33,000	64×100	0.35	28.5	7	7	22	HCG7A1K333YD100PH
	47,000	64×144	0.35	39.0	6	7	22	HCG7A1K473YD144PH
68,000	77×144	0.40	45.3	4	7	24	HCG7A1K683YE144PH	

ALUMINUM ELECTROLYTIC CAPACITORS

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μ F)	Case size ϕ D \times L (mm)	$\tan\delta$ 20°C, 120Hz	Ripple current (Arms) 40°C, 120Hz	ESR(typ.) (m Ω) 20°C, 100Hz	Z max (m Ω) 20°C, 10kHz	ESL(typ.) (nH)	Product name
100	3,300	36 \times 53	0.15	8.7	34	32	18	HCG7A2A332IA053PH
	4,700	36 \times 83	0.15	12.4	24	24	18	HCG7A2A472IA083PH
	6,800	36 \times 100	0.20	13.2	19	20	18	HCG7A2A682IA100PH
	10,000	51 \times 83	0.20	16.9	13	14	21	HCG7A2A103YC083PH
	15,000	51 \times 121	0.20	24.1	11	12	21	HCG7A2A153YC121PH
	22,000	64 \times 100	0.20	25.9	8	9	22	HCG7A2A223YD100PH
	33,000	64 \times 144	0.25	33.0	6	7	22	HCG7A2A333YD144PH
47,000	77 \times 144	0.30	37.6	5	7	24	HCG7A2A473YE144PH	

Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I versus rated ripple current at 40°C, 120Hz

