

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

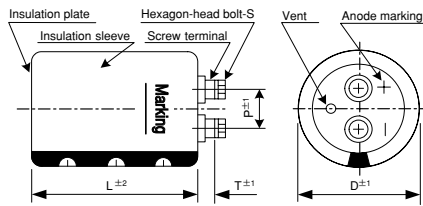
HCG7A Series

Useful of 4,000 hours at 85°C (Warranty of 2,000 hours at 85°C)

- Conform RoHS

Features

- Low voltage standard product.



(unit : mm)

φ D	P	S	T	Cap material
36	12.7	M5×10	7.0	PPS
51	22.0	M5×10	5.5	Phenol
64	28.6	M5×10	5.5	Phenol
77	32.0	M5×10	5.0	Phenol

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 2000 hours: Capacitance change : Within ±15% of initial value Dissipation factor : Not more than 175% of initial value specified Leakage current : Not more than initial value specified
Others	JIS C 5101-4.

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 type 100 V 10,000μF±20%

HCG7A 2A 103 Y PH

Type of series

Sealing code
Type of bracket code
Capacitance code
Rated voltage code

Bracket

- See page 21, 22 for shapes and dimensions.
- Product names in the Standard Products Table correspond to the bracket for Type Y (Type I for ø36 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.

Standard Products Table

Rated Voltage (V. DC)	Capacitance (μF)	Case size øDXL(mm)	tanδ 20°C, 120Hz	Ripple current 40°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL(typ.) (nH)	Product name
6.3	47000	36×53	1.00	13.4	47	40	18	HCG7A0J473IPPS
	68000	36×65	1.20	14.8	33	30	18	HCG7A0J683IPPS
	100000	36×83	1.20	19.7	22	22	18	HCG7A0J104IPPS
	150000	51×83	1.40	25.6	15	16	21	HCG7A0J154YPH
	220000	51×100	1.40	33.5	11	12	21	HCG7A0J224YPH
	330000	64×100	1.50	43.6	8	9	22	HCG7A0J334YPH
	470000	64×121	1.80	50.8	7	8	22	HCG7A0J474YPH
	680000	77×121	2.90	54.4	5	7	24	HCG7A0J684YPH
10	33000	36×53	0.90	11.9	25	26	18	HCG7A1A333IPPS
	47000	36×65	0.90	15.2	18	19	18	HCG7A1A473IPPS
	68000	36×83	1.20	20.3	13	14	18	HCG7A1A683IPPS
	100000	36×121	1.20	25.0	11	12	18	HCG7A1A104IPPS
	150000	51×83	1.40	27.6	7	7	21	HCG7A1A154YPH
	220000	51×121	1.50	37.6	5	6	21	HCG7A1A224YPH
	330000	64×121	1.80	46.5	5	6	22	HCG7A1A334YPH
	470000	77×121	2.30	52.0	4	6	24	HCG7A1A474YPH
16	22000	36×53	0.80	11.2	25	26	18	HCG7A1C223IPPS
	33000	36×65	0.80	14.8	17	18	18	HCG7A1C333IPPS
	47000	36×83	0.80	19.6	12	13	18	HCG7A1C473IPPS
	68000	36×121	1.10	27.7	11	12	18	HCG7A1C683IPPS
	100000	51×83	1.10	29.4	8	8	21	HCG7A1C104YPH
	150000	51×121	1.20	34.0	5	6	21	HCG7A1C154YPH
	220000	64×100	1.40	39.7	4	6	22	HCG7A1C224YPH
	330000	77×121	1.80	49.2	4	6	24	HCG7A1C334YPH
25	22000	36×65	0.50	12.1	22	23	18	HCG7A1E223IPPS
	33000	36×83	0.90	14.2	15	16	18	HCG7A1E333IPPS
	47000	36×121	0.90	19.8	10	11	18	HCG7A1E473IPPS
	68000	51×100	0.90	25.1	7	8	21	HCG7A1E683YPH
	100000	51×121	0.90	28.5	6	6	21	HCG7A1E104YPH
	150000	64×100	1.20	34.7	5	6	22	HCG7A1E154YPH
	220000	64×144	1.20	48.9	4	5	22	HCG7A1E224YPH
	330000	77×144	1.40	52.7	4	5	24	HCG7A1E334YPH

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Rated Voltage (V. DC)	Capacitance (μF)	Case size øDXL(mm)	tanδ 20°C, 120Hz	Ripple current 40°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL(typ.) (nH)	Product name
35	10000	36×53	0.40	9.6	29	31	18	HCG7A1V103IPPS
	15000	36×65	0.45	10.7	19	20	18	HCG7A1V153IPPS
	22000	36×83	0.45	13.4	14	15	18	HCG7A1V223IPPS
	33000	36×121	0.50	19.4	12	13	18	HCG7A1V333IPPS
	47000	51×83	0.50	22.5	8	9	21	HCG7A1V473YPH
	68000	51×100	0.70	27.6	7	8	21	HCG7A1V683YPH
	100000	64×100	1.00	29.5	6	7	22	HCG7A1V104YPH
	150000	64×144	1.00	41.4	5	7	22	HCG7A1V154YPH
50	220000	77×144	1.20	46.8	5	7	24	HCG7A1V224YPH
	6800	36×53	0.35	8.8	44	39	18	HCG7A1H682IPPS
	10000	36×65	0.35	11.6	30	28	18	HCG7A1H103IPPS
	15000	36×83	0.35	12.7	20	20	18	HCG7A1H153IPPS
	22000	36×121	0.40	18.2	14	15	18	HCG7A1H223IPPS
	33000	51×83	0.40	20.3	13	14	21	HCG7A1H333YPH
	47000	51×100	0.50	25.9	11	12	21	HCG7A1H473YPH
	68000	64×100	0.70	32.2	8	9	22	HCG7A1H683YPH
63	100000	64×144	0.70	36.8	6	7	22	HCG7A1H104YPH
	150000	77×144	0.90	37.8	5	7	24	HCG7A1H154YPH
	6800	36×53	0.20	10.2	38	35	18	HCG7A1J682IPPS
	10000	36×83	0.30	12.8	28	28	18	HCG7A1J103IPPS
	15000	36×100	0.35	15.1	21	22	18	HCG7A1J153IPPS
	22000	51×83	0.40	20.9	13	14	21	HCG7A1J223YPH
	33000	51×100	0.40	23.6	10	11	21	HCG7A1J333YPH
	47000	64×100	0.40	32.1	8	9	22	HCG7A1J473YPH
80	68000	64×144	0.50	37.2	7	8	22	HCG7A1J683YPH
	100000	77×144	0.70	41.1	7	8	24	HCG7A1J104YPH
	4700	36×53	0.15	10.4	32	30	18	HCG7A1K472IPPS
	6800	36×83	0.22	12.1	22	23	18	HCG7A1K682IPPS
	10000	36×100	0.22	16.0	15	16	18	HCG7A1K103IPPS
	15000	51×83	0.30	20.7	10	11	21	HCG7A1K153YPH
	22000	51×100	0.30	23.5	9	10	21	HCG7A1K223YPH
	33000	64×100	0.35	28.5	7	7	22	HCG7A1K333YPH
100	47000	64×144	0.35	39.0	6	7	22	HCG7A1K473YPH
	68000	77×144	0.40	45.3	4	7	24	HCG7A1K683YPH
	3300	36×53	0.15	8.7	34	32	18	HCG7A2A332IPPS
	4700	36×83	0.15	12.4	24	24	18	HCG7A2A472IPPS
	6800	36×100	0.20	13.2	19	20	18	HCG7A2A682IPPS
	10000	51×83	0.20	16.9	13	14	21	HCG7A2A103YPH
	15000	51×121	0.20	24.1	11	12	21	HCG7A2A153YPH
	22000	64×100	0.20	25.9	8	9	22	HCG7A2A223YPH
100	33000	64×144	0.25	33.0	6	7	22	HCG7A2A333YPH
	47000	77×144	0.30	37.6	5	7	24	HCG7A2A473YPH

Life time graph

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

