

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

HCG7A Series

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

Features

- The size is reduced by 15% of the HCG6 type through improvement of etched foil technology and the same level of permissible ripple current as that of the HCG6 type is provided.



Product Specifications

Items	Specifications
Temperature range	-25°C ~ +85°C
Capacitance tolerance	±20% (20°C, 120Hz)
Rated voltage	6.3 ~ 250V.DC
Leakage current	0.01CV (µA) or 5mA, whichever is smaller or less [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)
High-temperature load	After the rated voltage with specified ripple current is applied at 85°C for 2000 hours: Capacitance tolerance: ±15% or less of the initial value Dissipation factor: 175% or less of the specified initial value Leakage current: Specified initial value or less
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

Ripple current should be under 60 Arms at M5 terminal in accordance with from the permissible current.

Attachment of legs

- See page 53 for shapes and dimensions.
- Product names in the Standard Units Rating Table correspond to the attachment legs for Type Y (Type I for ø36 only), but Type I attachment legs may be used (Shape Code = I).
- If attachment legs are not necessary, enter "N" for the attachment leg shape code.
- Attachment legs will be delivered separately.

Standard value and case size

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
6.3V(0J)	47000	36·53	A5	1.00	13.4	HCG7A0J4731 PPS
	68000	36·65	A6	1.20	14.8	HCG7A0J6831 PPS
	100000	36·83	A8	1.20	19.7	HCG7A0J1041 PPS
	150000	51·83	C8	1.40	25.6	HCG7A0J154YPH
	220000	51·100	C10	1.40	33.5	HCG7A0J224YPH
	330000	64·100	D10	1.50	43.6	HCG7A0J334YPH
	470000	64·121	D12	1.80	50.8	HCG7A0J474YPH
	680000	77·121	E12	2.90	54.4	HCG7A0J684YPH

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
10V(1A)	33000	36·53	A5	0.90	11.9	HCG7A1A3331 PPS
	47000	36·65	A6	0.90	15.2	HCG7A1A4731 PPS
	68000	36·83	A8	1.20	20.3	HCG7A1A6831 PPS
	100000	36·121	A12	1.20	25.0	HCG7A1A1041 PPS
	150000	51·83	C8	1.40	27.6	HCG7A1A154YPH
	220000	51·121	C12	1.50	37.6	HCG7A1A224YPH
	330000	64·121	D12	1.80	46.5	HCG7A1A334YPH
	470000	77·121	E12	2.30	52.0	HCG7A1A474YPH

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
16V(1C)	22000	36·53	A5	0.80	11.2	HCG7A1C2331 PPS
	33000	36·65	A6	0.80	14.8	HCG7A1C3331 PPS
	47000	36·83	A8	0.80	19.6	HCG7A1C4731 PPS
	68000	36·121	A12	1.10	27.7	HCG7A1C6831 PPS
	100000	51·83	C8	1.10	29.4	HCG7A1C104YPH
	150000	51·121	C12	1.20	34.0	HCG7A1C154YPH
	220000	64·100	D10	1.40	39.7	HCG7A1C224YPH
	330000	77·121	E12	1.80	49.2	HCG7A1C334YPH

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
25V(1E)	22000	36·65	A6	0.50	12.1	HCG7A1E2231 PPS
	33000	36·83	A8	0.90	14.2	HCG7A1E3331 PPS
	47000	36·121	A12	0.90	19.8	HCG7A1E4731 PPS
	68000	51·100	C10	0.90	25.1	HCG7A1E683YPH
	100000	51·121	C12	0.90	28.5	HCG7A1E104YPH
	150000	64·100	D10	1.20	34.7	HCG7A1E154YPH
	220000	64·144	D15	1.20	48.9	HCG7A1E224YPH
	330000	77·144	E15	1.40	52.7	HCG7A1E334YPH

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
35V(1V)	10000	36·53	A5	0.40	9.6	HCG7A1V1031 PPS
	15000	36·65	A6	0.45	10.7	HCG7A1V1531 PPS
	22000	36·83	A8	0.45	13.4	HCG7A1V2231 PPS
	33000	36·121	A12	0.50	19.4	HCG7A1V3331 PPS
	47000	51·83	C8	0.50	22.5	HCG7A1V473YPH
	68000	51·100	C10	0.70	27.6	HCG7A1V683YPH
	100000	64·100	D10	1.00	29.5	HCG7A1V104YPH
	150000	64·144	D15	1.00	41.4	HCG7A1V154YPH
	220000	77·144	E15	1.20	46.8	HCG7A1V224YPH

Rated Voltage V. DC	Capacitance (µF)	Case size øDXL(mm)	Case code	tanδ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
50V(1H)	6800	36·53	A5	0.35	8.8	HCG7A1H6821 PPS
	10000	36·65	A6	0.35	11.6	HCG7A1H1031 PPS
	15000	36·83	A8	0.35	12.7	HCG7A1H1531 PPS
	22000	36·121	A12	0.40	18.2	HCG7A1H2231 PPS
	33000	51·83	C8	0.40	20.3	HCG7A1H333YPH
	47000	51·100	C10	0.50	25.9	HCG7A1H473YPH
	68000	64·100	D10	0.70	32.2	HCG7A1H683YPH
	100000	64·144	D15	0.70	36.8	HCG7A1H104YPH
	150000	77·144	E15	0.90	37.8	HCG7A1H154YPH

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
63V(1J)	6800	36·53	A5	0.20	10.2	HCG7A1J6821 PPS
	10000	36·83	A8	0.30	12.8	HCG7A1J1031 PPS
	15000	36·100	A10	0.35	15.1	HCG7A1J1531 PPS
	22000	51·83	C8	0.40	20.9	HCG7A1J223YPH
	33000	51·100	C10	0.40	23.6	HCG7A1J333YPH
	47000	64·100	D10	0.40	32.1	HCG7A1J473YPH
	68000	64·144	D15	0.50	37.2	HCG7A1J683YPH
	100000	77·144	E15	0.70	41.1	HCG7A1J104YPH

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
80V(1K)	4700	36·53	A5	0.15	10.4	HCG7A1K4721 PPS
	6800	36·83	A8	0.22	12.1	HCG7A1K6821 PPS
	10000	36·100	A10	0.22	16.0	HCG7A1K1031 PPS
	15000	51·83	C8	0.30	20.7	HCG7A1K153YPH
	22000	51·100	C10	0.30	23.5	HCG7A1K223YPH
	33000	64·100	D10	0.35	28.5	HCG7A1K333YPH
	47000	64·144	D15	0.35	39.0	HCG7A1K473YPH
	68000	77·144	E15	0.40	45.3	HCG7A1K683YPH

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
100V(2A)	3300	36·53	A5	0.15	8.7	HCG7A2A3321 PPS
	4700	36·83	A8	0.15	12.4	HCG7A2A4721 PPS
	6800	36·100	A10	0.20	13.2	HCG7A2A6821 PPS
	10000	51·83	C8	0.20	16.9	HCG7A2A103YPH
	15000	51·121	C12	0.20	24.1	HCG7A2A153YPH
	22000	64·100	D10	0.20	25.9	HCG7A2A223YPH
	33000	64·144	D15	0.25	33.0	HCG7A2A333YPH
	47000	77·144	E15	0.30	37.6	HCG7A2A473YPH

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
160V(2C)	1500	36·83	A8	0.25	6.9	HCG7A2C1521 PPS
	2200	36·100	A10	0.25	9.2	HCG7A2C2221 PPS
	3300	51·83	C8	0.25	12.0	HCG7A2C332YPH
	4700	51·100	C10	0.25	15.3	HCG7A2C472YPH
	6800	64·100	D10	0.25	20.4	HCG7A2C682YPH
	10000	64·121	D12	0.25	26.5	HCG7A2C103YPH
	15000	77·121	E12	0.25	34.4	HCG7A2C153YPH

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
200V(2D)	1000	36·65	A6	0.25	5.2	HCG7A2D1021 PPS
	1500	36·83	A8	0.25	6.9	HCG7A2D1521 PPS
	2200	36·121	A12	0.25	9.9	HCG7A2D2221 PPS
	3300	51·83	C8	0.25	12.0	HCG7A2D332YPH
	4700	51·121	C12	0.25	16.6	HCG7A2D472YPH
	6800	64·121	D12	0.25	21.9	HCG7A2D682YPH
	10000	77·121	E12	0.25	28.1	HCG7A2D103YPH

Rated Voltage V. DC	Capacitance (μ F)	Case size ϕ DXL(mm)	Case code	$\tan\delta$ 20°C,120Hz	Ripple current (Arms) 40°C,120Hz	Product name
250V(2E)	1000	36·83	A8	0.25	5.6	HCG7A2E1021 PPS
	1500	36·121	A12	0.25	8.1	HCG7A2E1521 PPS
	2200	51·83	C8	0.25	9.9	HCG7A2E222YPH
	3300	51·121	C12	0.25	13.9	HCG7A2E332YPH
	4700	64·100	D10	0.25	16.9	HCG7A2E472YPH
	6800	64·144	D15	0.25	23.5	HCG7A2E682YPH
	10000	77·144	E15	0.25	30.0	HCG7A2E103YPH

ALUMINUM ELECTROLYTIC CAPACITORS