

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

HCG7A Series (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 43 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
	68000	36·65	A6	1.20	14.8	HCG7A0J6831
	100000	36·83	A8	1.20	19.7	HCG7A0J1041
	150000	51·83	C8	1.40	25.6	HCG7A0J154Y
	220000	51·100	C10	1.40	33.5	HCG7A0J224Y
	330000	64·100	D10	1.50	43.6	HCG7A0J334Y
	470000	64·121	D12	1.80	50.8	HCG7A0J474Y
	680000	77·121	E12	2.90	54.4	HCG7A0J684Y

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
	47000	36·65	A6	0.90	15.2	HCG7A1A4731
	68000	36·83	A8	1.20	20.3	HCG7A1A6831
	100000	36·121	A12	1.20	25.0	HCG7A1A1041
	150000	51·83	C8	1.40	27.6	HCG7A1A154Y
	220000	51·121	C12	1.50	37.6	HCG7A1A224Y
	330000	64·121	D12	1.80	46.5	HCG7A1A334Y
	470000	77·121	E12	2.30	52.0	HCG7A1A474Y

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
	33000	36·65	A6	0.80	14.8	HCG7A1C3331
	47000	36·83	A8	0.80	19.6	HCG7A1C4731
	68000	36·121	A12	1.10	27.7	HCG7A1C6831
	100000	51·83	C8	1.10	29.4	HCG7A1C104Y
	150000	51·121	C12	1.20	34.0	HCG7A1C154Y
	220000	64·100	D10	1.40	39.7	HCG7A1C224Y
	330000	77·121	E12	1.80	49.2	HCG7A1C334Y

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
	33000	36·83	A8	0.90	14.2	HCG7A1E3331
	47000	36·121	A12	0.90	19.8	HCG7A1E4731
	68000	51·100	C10	0.90	25.1	HCG7A1E683Y
	100000	51·121	C12	0.90	28.5	HCG7A1E104Y
	150000	64·100	D10	1.20	34.7	HCG7A1E154Y
	220000	64·144	D15	1.20	48.9	HCG7A1E224Y
	330000	77·144	E15	1.40	52.7	HCG7A1E334Y

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
	15000	36·65	A6	0.45	10.7	HCG7A1V1531
	22000	36·83	A8	0.45	13.4	HCG7A1V2231
	33000	36·121	A12	0.50	19.4	HCG7A1V3331
	47000	51·83	C8	0.50	22.5	HCG7A1V473Y
	68000	51·100	C10	0.70	27.6	HCG7A1V683Y
	100000	64·100	D10	1.00	29.5	HCG7A1V104Y
	150000	64·144	D15	1.00	41.4	HCG7A1V154Y
	220000	77·144	E15	1.20	46.8	HCG7A1V224Y

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
	10000	36·65	A6	0.35	11.6	HCG7A1H1031
	15000	36·83	A8	0.35	12.7	HCG7A1H1531
	22000	36·121	A12	0.40	18.2	HCG7A1H2231
	33000	51·83	C8	0.40	20.3	HCG7A1H333Y
	47000	51·100	C10	0.50	25.9	HCG7A1H473Y
	68000	64·100	D10	0.70	32.2	HCG7A1H683Y
	100000	64·144	D15	0.70	36.8	HCG7A1H104Y
	150000	77·144	E15	0.90	37.8	HCG7A1H154Y

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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	HCG7A1J682L
	10000	36·83	A8	0.30	12.8	HCG7A1J103L
	15000	36·100	A10	0.35	15.1	HCG7A1J153L
	22000	51·83	C8	0.40	20.9	HCG7A1J223Y
	33000	51·100	C10	0.40	23.6	HCG7A1J333Y
	47000	64·100	D10	0.40	32.1	HCG7A1J473Y
	68000	64·144	D15	0.50	37.2	HCG7A1J683Y
	100000	77·144	E15	0.70	41.1	HCG7A1J104Y

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	HCG7A1K472L
	6800	36·83	A8	0.22	12.1	HCG7A1K682L
	10000	36·100	A10	0.22	16.0	HCG7A1K103L
	15000	51·83	C8	0.30	20.7	HCG7A1K153Y
	22000	51·100	C10	0.30	23.5	HCG7A1K223Y
	33000	64·100	D10	0.35	28.5	HCG7A1K333Y
	47000	64·144	D15	0.35	39.0	HCG7A1K473Y
	68000	77·144	E15	0.40	45.3	HCG7A1K683Y

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	HCG7A2A332L
	4700	36·83	A8	0.15	12.4	HCG7A2A472L
	6800	36·100	A10	0.20	13.2	HCG7A2A682L
	10000	51·83	C8	0.20	16.9	HCG7A2A103Y
	15000	51·121	C12	0.20	24.1	HCG7A2A153Y
	22000	64·100	D10	0.20	25.9	HCG7A2A223Y
	33000	64·144	D15	0.25	33.0	HCG7A2A333Y
	47000	77·144	E15	0.30	37.6	HCG7A2A473Y

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	HCG7A2C152L
	2200	36·100	A10	0.25	9.2	HCG7A2C222L
	3300	51·83	C8	0.25	12.0	HCG7A2C332Y
	4700	51·100	C10	0.25	15.3	HCG7A2C472Y
	6800	64·100	D10	0.25	20.4	HCG7A2C682Y
	10000	64·121	D12	0.25	26.5	HCG7A2C103Y
	15000	77·121	E12	0.25	34.4	HCG7A2C153Y

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	HCG7A2D102L
	1500	36·83	A8	0.25	6.9	HCG7A2D152L
	2200	36·121	A12	0.25	9.9	HCG7A2D222L
	3300	51·83	C8	0.25	12.0	HCG7A2D332Y
	4700	51·121	C12	0.25	16.6	HCG7A2D472Y
	6800	64·121	D12	0.25	21.9	HCG7A2D682Y
	10000	77·121	E12	0.25	28.1	HCG7A2D103Y

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	HCG7A2E102L
	1500	36·121	A12	0.25	8.1	HCG7A2E152L
	2200	51·83	C8	0.25	9.9	HCG7A2E222Y
	3300	51·121	C12	0.25	13.9	HCG7A2E332Y
	4700	64·100	D10	0.25	16.9	HCG7A2E472Y
	6800	64·144	D15	0.25	23.5	HCG7A2E682Y
	10000	77·144	E15	0.25	30.0	HCG7A2E103Y

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