

# SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

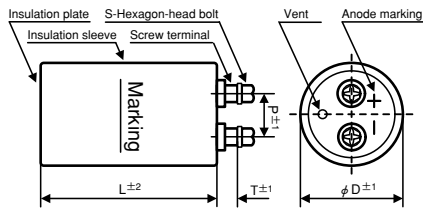
## HXA Series

Useful of 20,000 hours at 85°C (Warranty of 20,000 hours at 85°C)

- Conform RoHS

### Features

- High-reliability series with the warranty of 20,000 hours realized through improvement of the FXA type into a longer-life type



(unit : mm)

φ D	P	S	T	Cap material
51	22.0	M5×10	4.5	PPS
64	28.6	M5×10	4.5	PPS
77	32.0	M5×10	4.5	PPS
90	32.0	M5×10	4.0	PPS

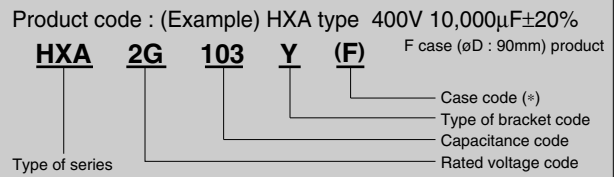
### Product Specifications

Items	Specifications
Temperature range	-40°C ~ +85°C
Rated voltage	350 ~ 450V.DC
Capacitance tolerance	±20% (20°C, 120Hz)
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. (85°C, 120Hz)
High-temperature load	After the rated voltage with specified ripple current is applied at 85°C for 20,000 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

Ambient temperature (°C)	40	60	85		
Correction coefficient	2.44	2.16	1.00		
Frequency (Hz)	50/60	120	300	1K	≥10K
Correction coefficient	0.7	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.



( ) Case code in parentheses : If two types of shape exist for the same rating, enter the case code.

### Bracket

- See page 51 for shapes and dimensions.
- Product names in the Standard Products Table correspond to the bracket for Type Y, 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 Code (Surge Voltage) (V.DC)	Capacitance (μF)	Case size φDXL(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR (typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL (typ.) (nH)	Product name
350 2V (400)	1000	51×75	0.15	3.8	100	103	21	HXA2V102Y
	1200	51×75	0.15	4.2	84	87	21	HXA2V122Y
	1500	51×96	0.15	5.2	67	69	21	HXA2V152Y
	1800	51×96	0.15	5.6	55	57	21	HXA2V182Y
	2200	51×130	0.15	7.1	45	47	21	HXA2V222Y
	2700	64×96	0.15	7.6	37	39	22	HXA2V272Y
	3300	64×115	0.15	9.0	29	31	22	HXA2V332Y
	3900	64×130	0.15	10.3	25	27	22	HXA2V392Y
	4700	64×155	0.15	12.2	20	21	22	HXA2V472YD
		77×115	0.15	11.5	20	21	24	HXA2V472YE
	5600	64×195	0.15	14.6	17	20	22	HXA2V562YD
		77×130	0.15	13.1	17	20	24	HXA2V562YE
	6800	77×155	0.15	15.5	14	18	24	HXA2V682Y
	8200	90×157	0.15	18.1	12	15	24	HXA2V822Y
	10000	90×157	0.15	19.9	10	15	24	HXA2V103Y
12000	90×196	0.15	23.8	8	13	24	HXA2V123Y	
15000	90×236	0.15	28.8	7	10	24	HXA2V153Y	

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Rated Voltage Code (Surge Voltage) (V <sub>DC</sub> )	Capacitance (μF)	Case size øDXL(mm)	tanδ 20°C, 120Hz	Ripple current 85°C, 120Hz (Arms)	ESR(typ.) 20°C, 100Hz (mΩ)	Z max 20°C, 10kHz (mΩ)	ESL(typ.) (nH)	Product name
400 2G (450)	1000	51×75	0.15	3.8	102	105	21	HXA2G102Y
	1200	51×96	0.15	4.6	85	88	21	HXA2G122Y
	1500	51×115	0.15	5.5	68	70	21	HXA2G152Y
	1800	51×130	0.15	6.4	57	58	21	HXA2G182Y
	2200	64×96	0.15	6.9	46	48	22	HXA2G222Y
	2700	64×115	0.15	8.2	38	40	22	HXA2G272Y
	3300	64×130	0.15	9.5	30	32	22	HXA2G332Y
	3900	64×155	0.15	11.1	27	28	22	HXA2G392YD
		77×115	0.15	10.4	27	28	24	HXA2G392YE
	4700	64×195	0.15	13.4	21	22	22	HXA2G472YD
		77×130	0.15	12.0	21	22	24	HXA2G472YE
	5600	64×195	0.15	14.6	20	20	22	HXA2G562YD
		77×155	0.15	14.4	20	20	24	HXA2G562YE
	6800	90×157	0.15	16.5	18	18	24	HXA2G682Y
8200	90×157	0.15	18.1	15	17	24	HXA2G822Y	
10000	90×196	0.15	21.7	12	15	24	HXA2G103Y	
12000	90×236	0.15	25.8	10	12	24	HXA2G123Y	
450 2W (500)	1000	51×96	0.15	4.2	102	105	21	HXA2W102Y
	1200	51×115	0.15	5.0	85	88	21	HXA2W122Y
	1500	51×130	0.15	5.8	68	70	21	HXA2W152Y
	1800	64×96	0.15	6.2	57	58	22	HXA2W182Y
	2200	64×115	0.15	7.4	46	48	22	HXA2W222Y
	2700	64×130	0.15	8.6	40	42	22	HXA2W272YD
		77×115	0.15	8.7	40	42	24	HXA2W272YE
	3300	64×155	0.15	10.2	30	35	22	HXA2W332YD
		77×130	0.15	10.0	30	35	24	HXA2W332YE
	3900	64×195	0.15	12.2	27	32	22	HXA2W392Y
	4700	77×155	0.15	12.9	24	27	24	HXA2W472Y
	5600	77×195	0.15	15.4	22	23	24	HXA2W562YE
		90×157	0.15	14.9	22	23	24	HXA2W562YF
	6800	90×196	0.15	18.0	20	20	24	HXA2W682Y
8200	90×196	0.15	19.8	18	18	24	HXA2W822Y	
10000	90×236	0.15	23.5	15	15	24	HXA2W103Y	

## Life time graph

Useful life depending on ambient temperature  $T_a$  and ripple current operating conditions  $I_r$  versus rated ripple current at 85°C, 120Hz

