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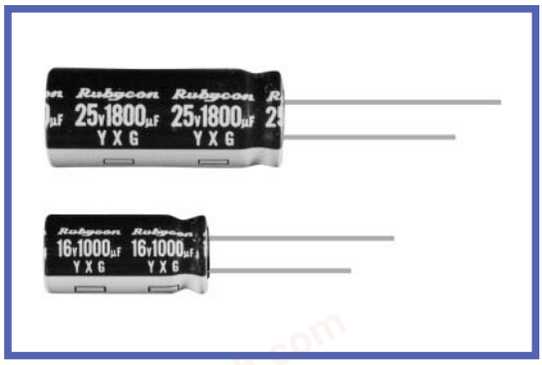
Rubycon

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS YXG

YXG SERIES

105℃ High ripple current. Long Life.



◆FEATURES

- Low impedance at 100kHz with selected materials.
- Load Life : 105℃ 3000～6000hours.
- RoHS compliance.

◆SPECIFICATIONS

Items	Characteristics
Category Temperature Range	−40～+105℃
Rated Voltage Range	6.3～100V.DC
Capacitance Tolerance	±20% (20℃, 120Hz)
Leakage Current(MAX)	I=0.01CV or 3 μA whichever is greater. (After 2 minutes) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)
(tanδ) Dissipation Factor(MAX)	(20℃, 120Hz)

Rated Voltage (V)	6.3	10	16	25	35	50	63	100
tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08

When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.

Endurance

After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements.

Capacitance Change	Within ±25% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.
Leakage Current	Not more than the specified value.

Case Size	Life Time (hrs)
φD ≦ 6.3	3000
φD = 8	4000
φD=10	5000
φD ≧ 12.5	6000

Low Temperature Stability Impedance Ratio(MAX) (120Hz)

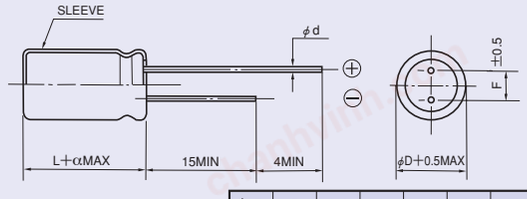
Rated Voltage (V)	6.3	10	16	25	35	50	63	100
Z(−25℃)/Z(20℃)	4	3	2	2	2	2	2	2
Z(−40℃)/Z(20℃)	8	6	4	3	3	3	3	3

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		120	1k	10k	100k ≦
Coefficient	6.8～33 μF	0.42	0.70	0.90	1.00
	39～270 μF	0.50	0.73	0.92	1.00
	330～680 μF	0.55	0.77	0.94	1.00
	820～1800 μF	0.60	0.80	0.96	1.00
	2200～18000 μF	0.70	0.85	0.98	1.00

◆DIMENSIONS (mm)



φD	5	6.3	8	10	12.5	16	18
φd	0.5		0.6			0.8	
F	2.0	2.5	3.5	5.0		7.5	
α	L≦16 : α=1.5 L≧20 : α=2.0						

◆PART NUMBER

□□□	YXG	□□□□□	□	□□□	□□	D×L
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

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◆STANDARD SIZE

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
				20°C, 100kHz	−10°C, 100kHz
6.3 (0J)	150	5×11	210	0.58	2.3
	330	6.3×11	340	0.22	0.87
	680	8×11.5	640	0.13	0.52
	820	10×12.5	865	0.080	0.32
	1000	8×16	840	0.087	0.35
	1200	8×20	1050	0.069	0.27
	1200	10×16	1210	0.060	0.24
	1500	10×20	1400	0.046	0.18
	1800	12.5×16	1450	0.049	0.16
	2200	10×23	1650	0.042	0.17
	2700	10×28	1910	0.031	0.12
	2700	16×16	1940	0.042	0.12
	3300	12.5×20	1900	0.035	0.12
	3900	12.5×25	2230	0.027	0.089
	3900	18×16	2210	0.043	0.11
	4700	12.5×30	2650	0.024	0.078
	5600	12.5×35	2880	0.020	0.065
	5600	16×20	2530	0.027	0.078
	6800	12.5×40	3350	0.017	0.056
	6800	16×25	2930	0.021	0.060
	6800	18×20	2860	0.026	0.067
	8200	16×31.5	3450	0.017	0.050
	10000	16×35.5	3610	0.015	0.044
	10000	18×25	3140	0.019	0.049
	12000	16×40	4080	0.013	0.038
	12000	18×31.5	4170	0.015	0.040
	15000	18×35.5	4220	0.014	0.038
	18000	18×40	4280	0.012	0.032
10 (1A)	100	5×11	210	0.58	2.3
	220	6.3×11	340	0.22	0.87
	470	8×11.5	640	0.13	0.52
	680	8×16	840	0.087	0.35
	680	10×12.5	865	0.080	0.32
	1000	8×20	1050	0.069	0.27
	1000	10×16	1210	0.060	0.24
	1200	10×20	1400	0.046	0.18
	1500	10×23	1650	0.042	0.17
	1500	12.5×16	1450	0.049	0.16
	2200	10×28	1910	0.031	0.12
	2200	12.5×20	1900	0.035	0.12
	2200	16×16	1940	0.042	0.12
	2700	18×16	2210	0.043	0.11
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	5600	16×25	2930	0.021	0.060
	5600	18×20	2860	0.026	0.067
	6800	16×31.5	3450	0.017	0.050
	6800	18×25	3140	0.019	0.049
	8200	16×35.5	3610	0.015	0.044
	8200	18×31.5	4170	0.015	0.040
	10000	16×40	4080	0.013	0.038
	10000	18×35.5	4220	0.014	0.038
	12000	18×40	4280	0.012	0.032

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
				20°C, 100kHz	−10°C, 100kHz
16 (1C)	56	5×11	210	0.58	2.3
	120	6.3×11	340	0.22	0.87
	330	8×11.5	640	0.13	0.52
	470	8×16	840	0.087	0.35
	470	10×12.5	865	0.080	0.32
	680	8×20	1050	0.069	0.27
	680	10×16	1210	0.060	0.24
	1000	10×20	1400	0.046	0.18
	1000	12.5×16	1450	0.049	0.16
	1200	10×23	1650	0.042	0.17
	1500	10×28	1910	0.031	0.12
	1500	12.5×20	1900	0.035	0.12
	1500	16×16	1940	0.042	0.12
	2200	12.5×25	2230	0.027	0.089
	2200	18×16	2210	0.043	0.11
	2700	12.5×30	2650	0.024	0.078
	2700	16×20	2530	0.027	0.078
	3300	12.5×35	2880	0.020	0.065
	3900	12.5×40	3350	0.017	0.056
	3900	16×25	2930	0.021	0.060
	3900	18×20	2860	0.026	0.067
	4700	16×31.5	3450	0.017	0.050
	4700	18×25	3140	0.019	0.049
	5600	16×35.5	3610	0.015	0.044
	5600	18×31.5	4170	0.015	0.040
	6800	16×40	4080	0.013	0.038
	8200	18×35.5	4220	0.014	0.038
	10000	18×40	4280	0.012	0.032
25 (1E)	47	5×11	210	0.58	2.3
	100	6.3×11	340	0.22	0.87
	220	8×11.5	640	0.13	0.52
	330	8×16	840	0.087	0.35
	330	10×12.5	865	0.080	0.32
	470	8×20	1050	0.069	0.27
	470	10×16	1210	0.060	0.24
	680	10×20	1400	0.046	0.18
	680	12.5×16	1450	0.049	0.16
	820	10×23	1650	0.042	0.17
	1000	10×28	1910	0.031	0.12
	1000	12.5×20	1900	0.035	0.12
	1000	16×16	1940	0.042	0.12
	1200	18×16	2210	0.043	0.11
	1500	12.5×25	2230	0.027	0.089
	1800	12.5×30	2650	0.024	0.078
	1800	16×20	2530	0.027	0.078
	2200	12.5×35	2880	0.020	0.065
	2200	18×20	2860	0.026	0.067
	2700	12.5×40	3350	0.017	0.056
	2700	16×25	2930	0.021	0.060
	3300	16×31.5	3450	0.017	0.050
	3300	18×25	3140	0.019	0.049
	3900	16×35.5	3610	0.015	0.044
	3900	18×31.5	4170	0.015	0.040
	4700	16×40	4080	0.013	0.038
	4700	18×35.5	4220	0.014	0.038
	5600	18×40	4280	0.012	0.032

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◆STANDARD SIZE

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
				20°C, 100kHz	−10°C, 100kHz
35 (1V)	33	5×11	210	0.58	2.3
	56	6.3×11	340	0.22	0.87
	150	8×11.5	640	0.13	0.52
	220	8×16	840	0.087	0.35
	220	10×12.5	865	0.080	0.32
	270	8×20	1050	0.069	0.27
	330	10×16	1210	0.060	0.24
	470	10×20	1400	0.046	0.18
	470	12.5×16	1450	0.049	0.16
	560	10×23	1650	0.042	0.17
	680	10×28	1910	0.031	0.12
	680	12.5×20	1900	0.035	0.12
	680	16×16	1940	0.042	0.12
	1000	12.5×25	2230	0.027	0.089
	1000	18×16	2210	0.043	0.11
	1200	12.5×30	2650	0.024	0.078
	1200	16×20	2530	0.027	0.078
	1500	12.5×35	2880	0.020	0.065
	1800	12.5×40	3350	0.017	0.056
	1800	16×25	2930	0.021	0.060
	1800	18×20	2860	0.026	0.067
	2200	16×31.5	3450	0.017	0.050
	2200	18×25	3140	0.019	0.049
	2700	16×35.5	3610	0.015	0.044
	2700	18×31.5	4170	0.015	0.040
	3300	16×40	4080	0.013	0.038
	3300	18×35.5	4220	0.014	0.038
	3900	18×40	4280	0.012	0.032
50 (1H)	22	5×11	180	0.70	2.8
	56	6.3×11	295	0.30	1.2
	100	8×11.5	555	0.17	0.68
	120	8×16	730	0.12	0.48
	150	10×12.5	760	0.12	0.48
	180	8×20	910	0.091	0.36
	220	10×16	1050	0.084	0.34
	270	10×20	1220	0.060	0.24
	270	12.5×16	1260	0.061	0.20
	330	10×23	1440	0.055	0.22
	470	10×28	1690	0.043	0.17
	470	12.5×20	1660	0.045	0.15
	470	16×16	1690	0.055	0.17
	560	12.5×25	1950	0.034	0.11
	560	18×16	1930	0.054	0.15
	680	12.5×30	2310	0.030	0.10
	820	12.5×35	2510	0.025	0.083
	820	16×20	2210	0.034	0.10
	1000	12.5×40	2920	0.021	0.069
	1000	16×25	2555	0.025	0.075
	1000	18×20	2490	0.036	0.097
	1200	16×31.5	3010	0.022	0.066
	1200	18×25	2740	0.026	0.070
	1500	16×35.5	3150	0.019	0.057
	1800	16×40	3710	0.016	0.048
	1800	18×31.5	3635	0.021	0.057
	2200	18×35.5	3680	0.017	0.046
	2700	18×40	3800	0.014	0.038

Rated Voltage (V·DC)	Rated capacitance (μF)	Size φ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (ΩMAX)	
				20°C, 100kHz	−10°C, 100kHz
63 (1J)	15	5×11	55	2.3	9.3
	33	6.3×11	115	1.2	5.0
	56	8×11.5	232	0.63	2.8
	82	8×16	300	0.45	2.1
	82	10×12.5	288	0.43	1.8
	120	8×20	362	0.33	1.6
	120	10×16	357	0.31	1.5
	180	10×20	466	0.21	0.94
	180	12.5×16	466	0.23	1.1
	220	10×23	531	0.20	0.84
	270	10×28	663	0.15	0.71
	270	12.5×20	690	0.16	0.64
	270	16×16	795	0.14	0.66
	330	12.5×25	784	0.12	0.45
	390	18×16	920	0.12	0.50
	470	12.5×30	905	0.10	0.42
	470	16×20	1040	0.091	0.38
	560	12.5×35	1050	0.083	0.35
	560	16×25	1250	0.073	0.27
	680	12.5×40	1180	0.071	0.30
	680	18×20	1240	0.080	0.30
	820	16×31.5	1570	0.054	0.20
	820	18×25	1490	0.057	0.21
	1000	16×35.5	1790	0.045	0.17
	1000	18×31.5	1630	0.047	0.17
	1200	16×40	2020	0.040	0.15
	1200	18×35.5	1790	0.040	0.15
	1500	18×40	2330	0.036	0.13
100 (2A)	6.8	5×11	55	2.3	9.3
	15	6.3×11	115	1.2	5.0
	27	8×11.5	232	0.63	2.8
	39	8×16	300	0.45	2.1
	47	10×12.5	288	0.43	1.8
	56	8×20	362	0.33	1.6
	68	10×16	357	0.31	1.5
	82	10×20	466	0.21	0.94
	82	12.5×16	466	0.23	1.1
	100	10×23	531	0.20	0.84
	120	10×28	663	0.15	0.71
	120	12.5×20	690	0.16	0.64
	150	16×16	795	0.14	0.66
	180	12.5×25	784	0.12	0.45
	180	18×16	920	0.12	0.50
	220	12.5×30	905	0.10	0.42
	220	16×20	1040	0.091	0.38
	270	12.5×35	1050	0.083	0.35
	270	16×25	1250	0.073	0.27
	330	12.5×40	1180	0.071	0.30
	330	18×20	1240	0.080	0.30
	390	16×31.5	1570	0.054	0.20
	390	18×25	1490	0.057	0.21
	470	16×35.5	1790	0.045	0.17
	470	18×31.5	1630	0.047	0.17
	560	16×40	2020	0.040	0.15
	680	18×35.5	1790	0.040	0.15
	820	18×40	2330	0.036	0.13