

Rubycon

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

YXH

YXH SERIES

105°C High ripple current. Long Life.

◆FEATURES

- Low impedance at 100kHz with selected materials.
- Load Life : 105°C 4000~10000hours.
- 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)																																																	
Dissipation Factor(MAX) (tan δ)	<table border="1"><tr><td>Rated Voltage (V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>tan δ</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td></tr></table> (20℃, 120Hz) When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.									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																							
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																																										
Endurance	After life test with rated ripple current at conditions stated in the table below, the capacitors shall meet the following requirements. <table border="1"><tr><td>Capacitance Change</td><td colspan="8">Within ±25% of the initial value.</td></tr><tr><td>Dissipation Factor</td><td colspan="8">Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="8">Not more than the specified value.</td></tr></table> <table border="1"><tr><td rowspan="2">Case Dia</td><td colspan="2">Life Time (hrs)</td></tr><tr><td>6.3~10WV</td><td>16~100WV</td></tr><tr><td>φ D≤6.3</td><td>4000</td><td>5000</td></tr><tr><td>φ D=8,10</td><td>6000</td><td>7000</td></tr><tr><td>φ D≥12.5</td><td>8000</td><td>10000</td></tr></table>									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 Dia	Life Time (hrs)		6.3~10WV	16~100WV	φ D≤6.3	4000	5000	φ D=8,10	6000	7000	φ D≥12.5	8000	10000
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	6.3~10WV	16~100WV																																																
φ D≤6.3	4000	5000																																																
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φ D≥12.5	8000	10000																																																
Low Temperature Stability Impedance Ratio(MAX)	<table border="1"><tr><td>Rated Voltage (V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table> (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														
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 μ F	0.42	0.70	0.90	1.00
	39~270 μ F	0.50	0.73	0.92	1.00
	330~680 μ F	0.55	0.77	0.94	1.00
	820~1800 μ F	0.60	0.80	0.96	1.00
	2200~18000 μF	0.70	0.85	0.98	1.00

PART NUMBER

YXH

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ted Capacitance

□

Capacitance Tolerance

□□□

Option

□□

Lead Forming

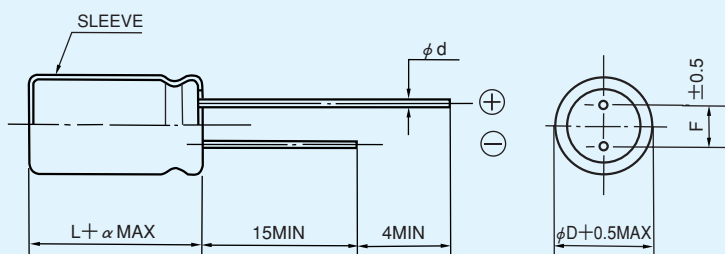
D×L

Case Size



◆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						

◆STANDARD SIZE

Rated voltage 6.3V(0J)				
Rated capacitance (μF)	Size $\phi D \times L$ (mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	-10°C, 100kHz
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



Rated voltage 10V(1A)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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
3300	12.5×25	2230	0.027	0.089
3900	12.5×30	2650	0.024	0.078
3900	16×20	2530	0.027	0.078
4700	12.5×35	2880	0.020	0.065
5600	12.5×40	3350	0.017	0.056
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 16V(1C)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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
	18×35.5	4220	0.014	0.038



Rated voltage 10V(1A)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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
3300	12.5×25	2230	0.027	0.089
3900	12.5×30	2650	0.024	0.078
3900	16×20	2530	0.027	0.078
4700	12.5×35	2880	0.020	0.065
5600	12.5×40	3350	0.017	0.056
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 16V(1C)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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
	18×35.5	4220	0.014	0.038



Rated voltage 25V(1E)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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

Rated voltage 35V(1V)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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
	18×35.5	4220	0.014	0.038



Rated voltage 50V(1H)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
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 63V(1J)				
Rated capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
15	5×11	62	1.8	7.3
33	6.3×11	126	1.0	4.1
56	8×11.5	260	0.50	2.2
82	8×16	335	0.36	1.7
82	10×12.5	325	0.34	1.4
120	8×20	408	0.26	1.3
120	10×16	400	0.25	1.2
180	10×20	518	0.17	0.76
180	12.5×16	527	0.18	0.86
220	10×23	595	0.16	0.67
270	10×28	740	0.12	0.57
270	12.5×20	765	0.13	0.52
270	16×16	895	0.11	0.52
330	12.5×25	875	0.096	0.36
390	18×16	1030	0.096	0.40
470	12.5×30	1010	0.080	0.34
470	16×20	1130	0.077	0.32
560	12.5×35	1140	0.070	0.30
560	16×25	1350	0.062	0.23
680	12.5×40	1280	0.060	0.25
680	18×20	1300	0.072	0.27
820	16×31.5	1650	0.049	0.18
820	18×25	1560	0.052	0.19
1000	16×35.5	1900	0.040	0.15
1000	18×31.5	1720	0.042	0.15
1200	16×40	2130	0.036	0.13
	18×35.5	1890	0.036	0.13



Rated voltage 100V(2A)				
Rated capacitance (μ F)	Size ϕ D $\times$ L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
			20°C, 100kHz	−10°C, 100kHz
6.8	5 $\times$ 11	62	1.8	7.3
15	6.3 $\times$ 11	126	1.0	4.1
27	8 $\times$ 11.5	260	0.50	2.2
39	8 $\times$ 16	335	0.36	1.7
47	10 $\times$ 12.5	325	0.34	1.4
56	8 $\times$ 20	408	0.26	1.3
68	10 $\times$ 16	400	0.25	1.2
82	10 $\times$ 20	518	0.17	0.76
82	12.5 $\times$ 16	527	0.18	0.86
100	10 $\times$ 23	595	0.16	0.67
120	10 $\times$ 28	740	0.12	0.57
120	12.5 $\times$ 20	765	0.13	0.52
150	16 $\times$ 16	895	0.11	0.52
180	12.5 $\times$ 25	875	0.096	0.36
180	18 $\times$ 16	1030	0.096	0.40
220	12.5 $\times$ 30	1010	0.080	0.34
220	16 $\times$ 20	1130	0.077	0.32
270	12.5 $\times$ 35	1140	0.070	0.30
270	16 $\times$ 25	1350	0.062	0.23
330	12.5 $\times$ 40	1280	0.060	0.25
330	18 $\times$ 20	1300	0.072	0.27
390	16 $\times$ 31.5	1650	0.049	0.18
390	18 $\times$ 25	1560	0.052	0.19
470	16 $\times$ 35.5	1900	0.040	0.15
470	18 $\times$ 31.5	1720	0.042	0.15
560	16 $\times$ 40	2130	0.036	0.13
680	18 $\times$ 35.5	1890	0.036	0.13
820	18 $\times$ 40	2470	0.032	0.12

