



ENGLISH

Datasheet

Aluminium Electrolytic Capacitor

RS Stock number 711-1703



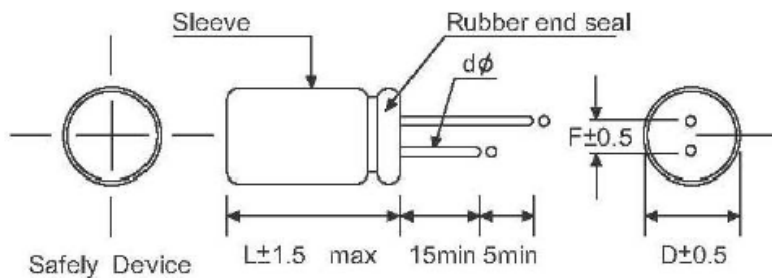
Specifications:

Item	Performance Characteristics																																												
Operating Temperature Range	-40 to +105°C	-25 to +105°C																																											
Rated Voltage Range	6.3 to 100 VDC	160 to 450 VDC																																											
Capacitance Tolerance	± 20% (120Hz, +20°C)																																												
Leakage Current (at 20°C, max.)	I < 0.01 CV or 3 (µA). After 1 minute whichever is greater measured with rated working voltage applied.	I < 0.03 CV or 3 (µA). After 1 minute with rated working voltage applied.																																											
Dissipation Factor (120Hz, 20°C)	<table border="1"> <tr> <td>Working voltage (VDC)</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><td>160</td><td>200</td><td>250</td><td>350</td><td>400</td><td>450</td> </tr> <tr> <td>D.F (%) Max.</td> <td>23</td><td>20</td><td>16</td><td>14</td><td>12</td><td>10</td><td>10</td><td>10</td><td>15</td><td>15</td><td>16</td><td>20</td><td>20</td><td>20</td> </tr> </table>															Working voltage (VDC)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	D.F (%) Max.	23	20	16	14	12	10	10	10	15	15	16	20	20	20
	Working voltage (VDC)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																														
D.F (%) Max.	23	20	16	14	12	10	10	10	15	15	16	20	20	20																															
For capacitance > 1000µ F, add 2% per another 1000µ (+20°C at 120Hz)																																													

Specifications:

Item	Performance Characteristics														
Low Temperature Characteristics (at 120Hz)	Impedance ratio max.														
	W.V (VDC)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	Z-25°C/+20°C	4	3	2	2	2	2	2	2	3	3	3	5	6	15
Z-40°C/+20°C	9	6	4	4	3	3	3	3	-	-	-	-	-	-	
For capacitance value 1000µF, add 0.5 per another 1000µF for -25°C/+20°C For capacitance value 1000µF, add 1 per another 1000µF for -40°C/+20°C															
Load Life	Test Conditions: Duration time: 2000hrs Ambient temperature: +105°C Applied voltage: Rated DC working voltage After test requirements: +20°C After test requirements: ≤ + 20% of initial measured value Dissipation Factor: ≤ 200% of the initial specified value Leakage Current: ≤ the initial specified value														
Shelf Life	Test Conditions: Duration time: 1000hrs Ambient temperature: +105°C Applied Voltage: None After test requirements at +20°C: Same limits as load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.														

Diagram of Dimensions:



(Unit: mm)

D	5	6	8	10	13	16	18	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	12
φd	0.5		0.6			0.8		1.0	

**Features:**

- Used in communication equipment's, switching power supply, etc.
- Safety vent construction design

Ripple Current & Temperature

Temperature (°C)	45	60	70	85	105
Multiplier	2.10	1.90	1.65	1.40	1.00

Ripple Current & Frequency Multipliers

CAP (μF)/Hz	50 (60)	120	400	1K	10K	50 – 100K
CAP ≤ 10	0.8	1.0	1.30	1.45	1.65	1.70
10 < CAP ≤ 100	0.8	1.0	1.23	1.36	1.48	1.53
100 < CAP ≤ 1000	0.8	1.0	1.16	1.25	1.35	1.38
1000 < CAP	0.8	1.0	1.11	1.18	1.25	1.28

Case Size

 \varnothing D x L (mm)

WV (SV) uF	6.3		(8)		10		(13)		16		(20)		25		(32)		35		(44)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7													5x11	27	5x11	29				
6.8													5x11	35	5x11	38				
10									5x11	38	5x11	40	5x11	42						
22			5x11	50	5x11	56	5x11	60	5x11	65	5x11	70	5x11	78						
33	5x11	56	5x11	60	5x11	65	5x11	70	5x11	78	5x11	85	5x11	95	5x11	105	5x11	115	5x11	125
47	5x11	68	5x11	72	5x11	78	5x11	85	5x11	95	5x11	105	5x11	115	5x11	125	5x11	135	5x11	145
68	5x11	77	5x11	82	5x11	88	5x11	95	5x11	105	5x11	115	5x11	125	5x11	135	5x11	145	5x11	155
100	5x11	98	5x11	110	5x11	120	5x11	130	5x11	140	5x11	150	5x11	160	5x11	170	5x11	180	5x11	190
220	5x11 6.3x11	160 180	6.3x11	180	6.3x11	200	6.3x11	220	6.3x11	240	6.3x11	260	6.3x11	280	6.3x11	300	6.3x11	320	6.3x11	340
330	6.3x11	200	6.3x11 8x11	260 280	6.3x11	300	6.3x11	330	6.3x11	360	6.3x11	390	6.3x11	420	6.3x11	450	6.3x11	480	6.3x11	510
470	6.3x11 8x11	280 310	6.3x11 8x11	300 315	6.3x11	330	6.3x11	360	6.3x11	390	6.3x11	420	6.3x11	450	6.3x11	480	6.3x11	510	6.3x11	540
560	8x11	320	8x11	330	8x11	340	8x11	350	8x11	360	8x11	370	8x11	380	8x11	390	8x11	400	8x11	410
680	8x11	360	10x12	420	10x12	480	10x12	540	10x12	600	10x12	660	10x12	720	10x12	780	10x12	840	10x12	900
820	8x11	390	10x12	480	10x12	540	10x12	600	10x12	660	10x12	720	10x12	780	10x12	840	10x12	900	10x12	960
1000	8x11	420	10x12 10x15	530 580	10x12	600	10x12	670	10x12	740	10x12	810	10x12	880	10x12	950	10x12	1020	10x12	1090
1200	10x15	480	10x15	650	10x15	710	10x15	770	10x15	830	10x15	890	10x15	950	10x15	1010	10x15	1070	10x15	1130
1500	10x15	620	10x17	770	10x17	820	10x17	870	10x17	920	10x17	970	10x17	1020	10x17	1070	10x17	1120	10x17	1170
2200	10x17 10x20	780 800	10x17 10x20	870 900	10x17	960	10x17	1050	10x17	1140	10x17	1230	10x17	1320	10x17	1410	10x17	1500	10x17	1590
2700	10x20	850	13x21	920	13x21	990	13x21	1060	13x21	1130	13x21	1200	13x21	1270	13x21	1340	13x21	1410	13x21	1480
3300	10x20 13x21	970 1010	10x25 13x21	1110 1160	10x25	1200	10x25	1290	10x25	1380	10x25	1470	10x25	1560	10x25	1650	10x25	1740	10x25	1830
4700	10x25 13x21	1160 1200	13x21 13x26	1360 1380	13x21	1450	13x21	1540	13x21	1630	13x21	1720	13x21	1810	13x21	1900	13x21	1990	13x21	2080
5600	13x26	1320	16x26	1510	16x26	1600	16x26	1690	16x26	1780	16x26	1870	16x26	1960	16x26	2050	16x26	2140	16x26	2230
6800	16x26	1470	16x26	1680	16x26	1770	16x26	1860	16x26	1950	16x26	2040	16x26	2130	16x26	2220	16x26	2310	16x26	2400
8200	16x26	1520	16x31	1840	16x31	1930	16x31	2020	16x31	2110	16x31	2200	16x31	2290	16x31	2380	16x31	2470	16x31	2560
10000	16x26 16x31	1690 1740	16x36 18x36	1900 1980	16x36	2000	16x36	2100	16x36	2200	16x36	2300	16x36	2400	16x36	2500	16x36	2600	16x36	2700
15000	16x36 18x36	2080 2190	18x36	2230	18x36	2300	18x36	2370	18x36	2440	18x36	2510	18x36	2580	18x36	2650	18x36	2720	18x36	2790

Ripple Current(mA,rms)at105□120Hz

Case Size uF	50 {63}		63 {79}		100 {125}		160 {200}		200 {250}	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1	5x11	1.3	5x11	1.3	5x11	1.3	-	-	-	-
0.22	5x11	2.9	5x11	2.9	5x11	2.9	-	-	-	-
0.33	5x11	4.2	5x11	4.2	5x11	4.2	-	-	-	-
0.47	5x11	8	5x11	8	5x11	8	5x11	12	5x11	12
1	5x11	14	5x11	14	5x11	15	5x11	17	6.3x11	17
2.2	5x11	20	5x11	21	5x11	22	6.3x11	26	6.3x11	33
3.3	5x11	26	5x11	28	5x11	30	6.3x11	32	6.3x11	43
4.7	5x11	32	5x11	34	5x11	36	6.3x11 8x11	36 42	8x11	51
6.8	5x11	40	5x11	42	6.3x11	47	8x11	56	10x12	63
10	5x11	50	5x11	51	6.3x11	60	8x11 10x12	75 78	10x12 10x15	83 90
22	5x11	75	5x11 6.3x11	75 85	6.3x11 8x11	98 105	10x15	105	10x20	135
33	5x11 6.3x11	90 95	6.3x11 8x11	105 115	8x11 10x12	145 155	10x20	170	13x21	180
47	6.3x11	120	6.3x11 8x11	145 155	10x12 10x15	170 180	13x21	210	13x21 13x26	220 230
68	8x11	155	8x11	185	10x15	240	13x26	280	16x26	300
100	8x11	200	10x12	240	10x20	290	13x26 16x26	320 330	16x26	360
220	10x12 10x15	350 380	10x17 10x20	400 430	13x26 16x26	530 560	16x36	580	18x36	590
330	10x17 10x20	450 470	13x21	570	16x26	680	18x31	710	18x36	740
470	13x21	610	13x21 13x26 16x26	640 700 720	16x26 16x31	840 860	18x41	880	22x42	890
560	13x21	660	13x26	770	16x36	880	-	-	-	-
680	13x26	770	16x26	880	16x36	920	-	-	-	-
820	13x26	850	16x26	920	18x31	970	-	-	-	-
1000	13x26 16x26	900 1010	16x32 16x36	1190 1220	18x41	1250	-	-	-	-
1500	16x31	1300	18x31	1350	22x42	1500	-	-	-	-
2200	18x36	1550	18x36	1590	25x44	1880	-	-	-	-
2700	18x36	1610	22x42	1720	-	-	-	-	-	-
3300	18x36	1780	22x42	1900	-	-	-	-	-	-
4700	22x42	2050	25x44	2200	-	-	-	-	-	-
5600	25x42	2160	-	-	-	-	-	-	-	-
6800	25x44	2280	-	-	-	-	-	-	-	-

Ripple Current(mA,rms)at105□120Hz

Case Size		Ø D x L (mm)											
uF	WV {SV}	{250}		{300}		{350}		{400}		{450}		{500}	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47		5x11	12	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15
1		6.3x11	17	6.3x11	20	8x11	22	8x11	22	8x11	22	8x11	22
2.2		8x11	36	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39
3.3		8x11	43	10x12	53	10x12 10x15	53	55	55	10x15 10x20	53	55	55
4.7		10x12	51	10x12 10x15	63	66	66	66	66	10x15	69	10x20	64
6.8		10x12	70	10x15	79	79	79	79	79	10x15	85	10x20	75
10		10x15	90	10x20	110	110	110	110	110	10x15 10x20 13x21	100 112 115	13x21 13x26	92
22		10x20	160	13x26	180	180	180	180	180	13x21 16x26	170 190	16x26 16x31	175 180
33		13x21 13x26	175	180	180	180	180	180	180	16x26	190	16x26	190
47		13x26	240	16x31	250	250	250	250	250	16x26	220	16x36	210
68		16x26	320	16x31	330	330	330	330	330	16x31	300	16x36	280
100		16x31	400	18x36	420	420	420	420	420	16x31	355	18x36	330
120										18x36	450	-	-
										18x31	440		

Ripple Current(mA,rms)at105□120Hz