



ENGLISH

Datasheet

Aluminium Electrolytic Capacitor

RS Stock number 711-1558



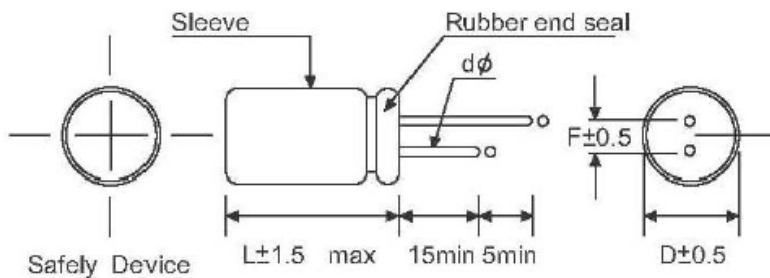
Specifications:

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.																																													
	<table border="1"> <thead> <tr> <th>W.V (VDC)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Z- 25°C/+20°C</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> <td>3</td> <td>3</td> <td>3</td> <td>5</td> <td>6</td> <td>15</td> </tr> <tr> <td>Z- 40°C/+20°C</td> <td>9</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>	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	-	-	-	-	-	-
	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	-	-	-	-	-	-																																
<p>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</p>																																														
Load Life	<p>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</p>																																													
Shelf Life	<p>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.</p>																																													

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

Ø 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	88	5x11	98	5x11	110	5x11	115		
47	5x11	68	5x11	72	5x11	80	5x11	90	5x11	100	5x11	105	5x11	115	5x11	125	5x11	135	6.3x11	140
68	5x11	77	5x11	82	5x11	90	5x11	100	5x11	110	5x11	120	5x11	130	5x11	140	5x11	150	6.3x11	165
100	5x11	98	5x11	110	5x11	120	5x11	130	5x11	140	5x11	150	5x11	165	5x11	180	5x11	190	6.3x11	200
220	5x11 6.3x11	160 180	6.3x11	180	6.3x11	220	6.3x11 8x11	230	6.3x11	270	6.3x11 8x11	280	6.3x11 8x11	330	6.3x11 8x11	350	6.3x11 8x11	380	6.3x11 8x11	420
330	6.3x11	200	6.3x11 8x11	260 280	6.3x11	300	6.3x11 8x11	315	6.3x11	360	6.3x11 8x11	380	6.3x11 8x11	420	6.3x11 8x11	445	6.3x11 8x11	480	6.3x11 8x11	520
470	6.3x11 8x11	280 310	6.3x11 8x11	300 315	6.3x11	360	6.3x11 8x11	400	6.3x11	450	6.3x11 8x11	480	6.3x11 8x11	540	6.3x11 8x11	580	6.3x11 8x11	630	6.3x11 8x11	680
560	8x11	320	8x11	330	8x11	360	8x11	380	8x11	420	8x11	450	8x11	480	8x11	520	8x11	560	8x11	600
680	8x11	360	8x11	380	8x11	420	8x11	450	8x11	500	8x11	540	8x11	600	8x11	640	8x11	700	8x11	750
820	8x11	390	8x11	420	8x11	480	8x11	520	8x11	580	8x11	620	8x11	680	8x11	740	8x11	800	8x11	850
1000	8x11	420	8x11	450	8x11	500	8x11	540	8x11	600	8x11	640	8x11	700	8x11	750	8x11	800	8x11	850
1200	10x15	480	10x15	500	10x15	550	10x15	600	10x15	650	10x15	700	10x15	750	10x15	800	10x15	850	10x15	900
1500	10x15	620	10x15	650	10x15	700	10x15	750	10x15	800	10x15	850	10x15	900	10x15	950	10x15	1000	10x15	1050
2200	10x17 10x20	780 800	10x17 10x20	800 850	10x17	850	10x17 10x20	900	10x17	950	10x17 10x20	1000	10x17 10x20	1050	10x17 10x20	1100	10x17 10x20	1150	10x17 10x20	1200
2700	10x20	850	10x20	900	10x20	950	10x20	1000	10x20	1050	10x20	1100	10x20	1150	10x20	1200	10x20	1250	10x20	1300
3300	10x20 13x21	970 1010	10x20 13x21	1000 1050	10x20	1100	10x20 13x21	1150	10x20	1200	10x20 13x21	1250	10x20 13x21	1300	10x20 13x21	1350	10x20 13x21	1400	10x20 13x21	1450
4700	10x25 13x21	1160 1200	10x25 13x21	1200 1250	10x25	1300	10x25 13x21	1350	10x25	1400	10x25 13x21	1450	10x25 13x21	1500	10x25 13x21	1550	10x25 13x21	1600	10x25 13x21	1650
5600	13x26	1320	13x26	1350	13x26	1400	13x26	1450	13x26	1500	13x26	1550	13x26	1600	13x26	1650	13x26	1700	13x26	1750
6800	16x26	1470	16x26	1500	16x26	1550	16x26	1600	16x26	1650	16x26	1700	16x26	1750	16x26	1800	16x26	1850	16x26	1900
8200	16x26	1520	16x26	1550	16x26	1600	16x26	1650	16x26	1700	16x26	1750	16x26	1800	16x26	1850	16x26	1900	16x26	1950
10000	16x26 16x31	1690 1740	16x26 16x31	1700 1750	16x26	1800	16x26 16x31	1850	16x26	1900	16x26 16x31	1950	16x26 16x31	2000	16x26 16x31	2050	16x26 16x31	2100	16x26 16x31	2150
15000	16x36 18x36	2080 2190	16x36 18x36	2100 2200	16x36	2200	16x36 18x36	2250	16x36	2300	16x36 18x36	2350	16x36 18x36	2400	16x36 18x36	2450	16x36 18x36	2500	16x36 18x36	2550

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}	{300}		{400}		{450}		{500}	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47		5x11	12	6.3x11	15	6.3x11	15	6.3x11	15
1		6.3x11	17	6.3x11	20	8x11	22	8x11	22
2.2		8x11	36	10x12	39	10x12	39	10x12	39
3.3		8x11	43	10x12	53	10x12 10x15	53 55	10x15 10x20	53 55
4.7		10x12	51	10x12 10x15	63 66	10x15	69	10x20	64
6.8		10x12	70	10x15	79	10x15	85	10x20	75
10		10x15	90	10x20	110	10x15 10x20 13x21	100 112 115	13x21 13x26	92 98
22		10x20	160	13x26	180	13x21 16x26	170 190	16x26 16x31	175 180
33		13x21 13x26	175 180	16x26	190	16x26	220	16x36	210
47		13x26	240	16x31	250	16x31	300	16x36	280
68		16x26	320	16x31	330	16x36	355	18x36	330
100		16x31	400	18x36	420	18x36	450	-	-
120						18x31	440		

Ripple Current(mA,rms)at105□120Hz