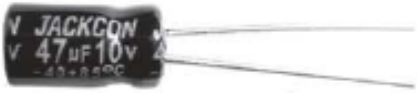


Professionally approved products.

Datasheet

Aluminium Electrolytic Capacitor

RS Stock number 711-2157



Specifications:

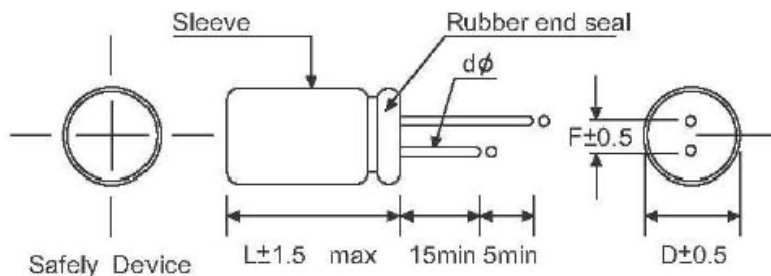
Item	Performance Characteristics																																												
Operating Temperature Range	-40 to +105°C	-25 to +105°C																																											
Rated Voltage Range	6.3 to 100 VDC	160 to 450 VDC																																											
Capacitance Tolerance	± 20% (120Hz, +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"> <thead> <tr> <th>Working voltage (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>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> </tbody> </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)																																													

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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	-	-	-	-	-	-																																
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: $\leq \pm 20\%$ of initial measured value Dissipation Factor: $\leq 200\%$ of the initial specified value Leakage Current: \leq 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	

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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
$CAP \leq 10$	0.8	1.0	1.30	1.45	1.65	1.70
$10 < CAP \leq 100$	0.8	1.0	1.23	1.36	1.48	1.53
$100 < CAP \leq 1000$	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

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Datasheet

Case Size

 \varnothing D x L (mm)

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	62	5x11	65	5x11	68	5x11	72	5x11	77	5x11	82
33	5x11	56	5x11	60	5x11	65	5x11	70	5x11	78	5x11	85	5x11	92	5x11	100	5x11	105	5x11	110
47	5x11	68	5x11	72	5x11	78	5x11	85	5x11	92	5x11	100	5x11	105	5x11	110	5x11	115	5x11	115
68	5x11	77	5x11	82	5x11	88	5x11	95	5x11	102	5x11	110	6.3x11	120	6.3x11	130	6.3x11	140	6.3x11	140
100	5x11	98	5x11	110	5x11	120	5x11	130	5x11	140	5x11	150	6.3x11	150	6.3x11	165	6.3x11	180	6.3x11	180
220	5x11 6.3x11	160 180	6.3x11	180	6.3x11	200	6.3x11 8x11	220 230	8x11	240	8x11	260	8x11	280	8x11	300	8x11	330	8x11 10x12	300 330
330	6.3x11	200	6.3x11 8x11	260 280	8x11	300	8x11	330	8x11	360	8x11 10x12	390 420	8x11 10x12	420	10x12	450	10x12	480	10x12	410 420
470	6.3x11 8x11	280 310	6.3x11 8x11	300 315	8x11	330	8x11 10x12	380 400	8x11 10x12	415 445	8x14 10x12 10x15	445 480	8x14 10x12 10x15	480	10x17	520	10x17	560	10x17	480 520
560	8x11	320	8x11	330	10x12	360	10x12	410	10x12	460	10x15	510	10x15	560	10x17	610	10x17	660	10x17	540
680	8x11	360	10x12	420	10x12	480	10x12	540	10x12	600	10x15	660	10x15	720	10x20	780	10x20	840	10x20	650
820	8x11	390	10x12	480	10x12	540	10x15	600	10x15	660	10x15	720	10x15	780	10x20	840	10x20	900	10x20	760
1000	8x11	420	10x12 10x15	530 580	8x16 10x15 10x17	570 630 600	10x15 10x17 10x20	630 700 660	10x15 10x17 10x20	700 770 730	10x15 10x17 10x20	770 840 800	10x15 10x17 10x20	840	10x25 13x21	870 880	10x25 13x21	940	10x25 13x21	870 880
1200	10x15	480	10x15	650	10x20	710	10x20	770	10x20	830	10x20	890	10x20	950						
1500	10x15	620	10x17	770	10x20	820	10x20	870	10x20	920	13x21	970	13x21	1020	13x26	1070	13x26	1120	13x26	970
2200	10x17 10x20	780 800	10x17 10x20	870 900	13x21 13x26	1020 1060	13x21 13x26	1070 1110	13x21 13x26	1120 1160	13x21 13x26 16x16	1170 1210 1250	13x21 13x26 16x16	1220	16x26	1270	16x26	1320	16x26	1300 1400
2700	10x20	850	13x21	920	13x21	1100	13x21	1170	13x21	1240	16x26	1310	16x26	1380	16x31	1450	16x31	1520	16x31	1500
3300	10x20 13x21	970 1010	10x25 13x21	1110 1160	13x21 13x26	1220 1240	13x21 13x26	1270 1290	13x21 13x26	1330 1350	16x26 16x31	1400 1420	16x26 16x31	1470	16x36	1540	16x36	1610	16x36	1680
4700	10x25 13x21	1160 1200	13x21 13x26	1360 1380	16x26	1620	16x26	1680	16x26	1740	16x31	1800	16x31	1860	18x36	1920	18x36	1980	18x36	1900
5600	13x26	1320	16x26	1510	16x31	1720	16x31	1830	16x31	1940	16x36	2050	16x36	2160	18x36	2270	18x36	2380	18x36	2000
6800	16x26	1470	16x26	1680	16x31	1880	16x31	2080	16x31	2280	18x36	2480	18x36	2680	18x41	2880	18x41	3080	18x41	2090
8200	16x26	1520	16x31	1840	16x36	1950	16x36	2060	16x36	2170	18x36	2280	18x36	2390	22x42	2500	22x42	2610	22x42	2180
10000	16x26 16x31	1690 1740	16x36 18x36	1900 1980	18x36 18x41	2080 2080	18x36 18x41	2180 2180	18x36 18x41	2280 2280	22x42	2380	22x42	2480	25x44	2580	25x44	2680	25x44	2300
15000	16x36 18x36	2080 2190	18x36	2230	22x40	2300	22x40	2370	22x40	2440	22x42	2510	22x42	2580	-	2650	-	2720	-	-

Ripple Current(mA,rms)at105°C/120Hz

Professionally approved products. Datasheet

 Case Size Ø D x L (mm)

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

Professionally approved products. Datasheet

Case Size		Ø D x L (mm)															
uF	WV {SV}	250		{300}		350		{400}		400		{450}		450		{500}	
		Size	Ripple	Size	Ripple	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	6.3x11	15	6.3x11	15
1		6.3x11	17	6.3x11	20	8x11	22	8x11	22	8x11	22	8x11	22	8x11	22	8x11	22
2.2		8x11	36	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39
3.3		8x11	43	10x12	53	10x12	53	10x12	53	10x15	53	10x15	55	10x15	53	10x20	55
4.7		10x12	51	10x12	63	10x15	66	10x15	69	10x15	69	10x20	64	10x20	64	10x20	64
6.8		10x12	70	10x15	79	10x15	79	10x15	85	10x15	85	10x20	75	10x20	75	10x20	75
10		10x15	90	10x20	110	10x20	110	10x15	100	10x20	112	13x21	92	13x26	98	13x21	98
22		10x20	160	13x26	180	13x26	180	13x21	170	16x26	190	16x26	175	16x31	180	16x26	180
33		13x21	175	13x26	180	16x26	190	16x26	220	16x26	220	16x36	210	16x36	210	16x36	210
47		13x26	240	16x31	250	16x31	250	16x31	300	16x31	300	16x36	280	16x36	280	16x36	280
68		16x26	320	16x31	330	16x31	330	16x36	355	16x36	355	18x36	330	18x36	330	18x36	330
100		16x31	400	18x36	420	18x36	420	18x36	450	18x36	450	-	-	-	-	-	-
120								18x31	440	18x31	440						

Ripple Current(mA,rms)at105□120Hz