

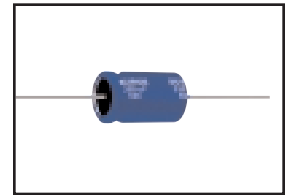


ALUMINUM ELECTROLYTIC CAPACITORS - GENERAL PURPOSE SERIES

AXIAL LEADED

FEATURES

- FOR USE UP TO 100V FOR MINIATURIZATION AND AUTOMATIC INSERTION USES
- CLOSE CAPACITANCE
- LOW DISSIPATION FACTOR

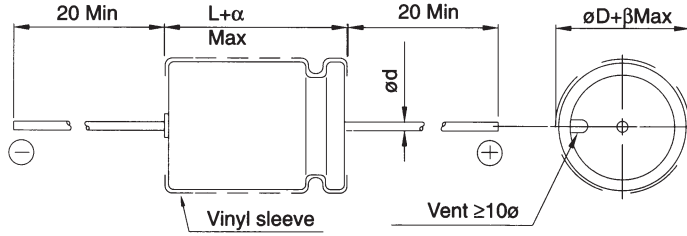


SPECIFICATIONS

Items	Performance																																																																																		
Operating Temperature Range	6.3~250V -40°C~+85°C	350~450V -25°C~+85°C																																																																																	
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																																																																		
Leakage Current (at 20 °C)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Rated Voltage</td> <td style="width: 40%;">≤100V</td> <td colspan="2" style="width: 40%;">>100V</td> </tr> <tr> <td>Time</td> <td>after 2 minutes</td> <td colspan="2">after 5 minutes</td> </tr> <tr> <td>Leakage Current</td> <td>I=0.02CV or 3(μA) whichever is greater</td> <td>CV≤1000 I=0.03CV+15(μA)</td> <td>CV>1000 I=0.02CV+25(μA)</td> </tr> </table> <p style="text-align: center; font-size: small;">Where, C=rated capacitance in μF. V=rated DC working voltage in V.</p>		Rated Voltage	≤100V	>100V		Time	after 2 minutes	after 5 minutes		Leakage Current	I=0.02CV or 3(μA) whichever is greater	CV≤1000 I=0.03CV+15(μA)	CV>1000 I=0.02CV+25(μA)																																																																					
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Dissipation Factor (Tan δ at 120 Hz, 20 °C)	<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td>Rated Voltage</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>Tan δ (max)</td> <td>0.23</td><td>0.20</td><td>0.17</td><td>0.15</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.12</td><td>0.14</td><td>0.17</td><td>0.20</td><td>0.25</td><td>0.25</td> </tr> </table> <p style="text-align: center; font-size: x-small;">When the capacitance exceeds 1000μF, 0.02 shall be added every 1000 μF increase.</p>		Rated Voltage	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Tan δ (max)	0.23	0.20	0.17	0.15	0.12	0.10	0.09	0.08	0.12	0.14	0.17	0.20	0.25	0.25																																																			
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Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td colspan="2">Rated Voltage</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 rowspan="4">Impedance Ratio</td> <td>Z(-25°C)</td> <td>∅D<16</td> <td>6</td><td>4</td><td>3</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>3</td><td>6</td><td>8</td><td>12</td><td>14</td><td>16</td> </tr> <tr> <td>Z(+20°C)</td> <td>∅D≥16</td> <td>8</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>4</td><td>8</td><td>10</td><td>-</td><td>-</td><td>-</td> </tr> <tr> <td>Z(-40°C)</td> <td>∅D<16</td> <td>10</td><td>8</td><td>6</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>4</td><td>8</td><td>10</td><td>-</td><td>-</td><td>-</td> </tr> <tr> <td>Z(+20°C)</td> <td>∅D≥16</td> <td>18</td><td>16</td><td>12</td><td>10</td><td>8</td><td>8</td><td>6</td><td>6</td><td>4</td><td>8</td><td>10</td><td>-</td><td>-</td><td>-</td> </tr> </table>		Rated Voltage		6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Impedance Ratio	Z(-25°C)	∅D<16	6	4	3	3	2	2	2	2	3	6	8	12	14	16	Z(+20°C)	∅D≥16	8	6	4	4	3	3	3	3	4	8	10	-	-	-	Z(-40°C)	∅D<16	10	8	6	6	4	3	3	3	4	8	10	-	-	-	Z(+20°C)	∅D≥16	18	16	12	10	8	8	6	6	4	8	10	-	-	-
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DIAGRAM OF DIMENSIONS



Unit: mm

LEAD DIAMETER

øD	5	6.3	8	10	13	16	18	22	25
ø d	0.6				0.8			1.0	
α	1.5				2.0				
β	0.5				1.0				

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: ø D x L (mm)
Ripple Current: mA/rms at 120 Hz, 85 °C

V.DC	μF code	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
		ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA
0.1	0R1											5 x 12	1.5	5 x 12	3	5 x 12	3
0.22	R22											5 x 12	3.5	5 x 12	4.5	5 x 12	5
0.33	R33											5 x 12	5	5 x 12	7.5	5 x 12	8
0.47	R47											5 x 12	6	5 x 12	9	5 x 12	9
1	010											5 x 12	10	5 x 12	15	5 x 12	15
2.2	2R2											5 x 12	20	5 x 12	30	5 x 12	30
3.3	3R3											5 x 12	30	5 x 12	36	5 x 12	41
4.7	4R7											5 x 12	42	5 x 12	44	6.3 x 13	50
10	100								5 x 12	55	6.3 x 13	65	6.3 x 13	68	6.3 x 13	72	
22	220					5 x 12	71	5 x 12	76	6.3 x 13	88	6.3 x 13	96	6.3 x 13	109	8 x 16	133
33	330			5 x 12	78	5 x 12	88	6.3 x 13	100	6.3 x 13	115	6.3 x 13	126	8 x 13	154	10 x 17	190
47	470	5 x 12	87	5 x 12	94	6.3 x 13	111	6.3 x 13	119	6.3 x 13	138	8 x 13	174	8 x 16	214	10 x 21	237
100	101	6.3 x 13	136	6.3 x 13	145	6.3 x 13	174	8 x 13	215	8 x 16	232	10 x 17	296	10 x 17	326	13 x 22	377
220	221	6.3 x 13	215	6.3 x 13	231	8 x 13	298	8 x 16	319	10 x 17	401	10 x 21	459	13 x 22	527	16 x 27	625
330	331	8 x 16	305	8 x 16	327	8 x 16	365	10 x 17	454	10 x 21	514	13 x 22	613	13 x 22	675	16 x 33	793
470	471	8 x 16	364	8 x 16	390	8 x 16	460	10 x 17	524	10 x 21	613	13 x 22	731	13 x 27	780	16 x 37	942
1000	102	10 x 17	662	10 x 17	671	10 x 21	775	13 x 22	873	13 x 27	955	16 x 33	1111	18 x 37	1249	22 x 43	1359
2200	222	13 x 22	929	13 x 22	1051	13 x 22	1125	16 x 27	1344	16 x 33	1421	18 x 36	1699	22 x 43	1744		
3300	332	13 x 27	1150	13 x 27	1288	16 x 27	1454	16 x 33	1611	16 x 37	1640	22 x 43	2027	25 x 52	2309		
4700	472	13 X 27	1354	16 X 27	1552	16 X 33	1650	18 X 37	1881	22 X 43	2208	25 X 43	2347				
10000	103	16 X 37	2062	18 X 42	2122	22 X 43	2503	22 X 52	2893								
22000	223	22 X 43	3097														

V.DC	μF code	160V (2C)		200V (2D)		250V (2E)		350V (2V)		400V (2G)		450V (2W)	
		ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA	ø D x L	mA
1	010	6.3 x 13	7	6.3 x 16	9	6.3 x 16	12	8 x 16	13	8 x 16	14	8 x 16	15
2.2	2R2	6.3 x 13	15	8 x 16	16	8 x 16	17	8 x 20	19	10 x 17	21	10 x 21	23
3.3	3R3	8 x 16	21	8 x 16	26	8 x 20	31	8 x 20	33	10 x 17	34	10 x 21	36
4.7	4R7	8 x 16	31	8 x 16	33	10 x 17	38	10 x 21	44	13 x 22	45	13 x 22	46
10	100	10 x 17	60	10 x 21	66	10 x 21	72	13 x 22	77	13 x 22	80	13 x 27	82
22	220	13 x 22	121	13 x 22	121	13 x 27	126	13 x 27	132	16 x 33	137	16 x 37	143
33	330	13 x 22	154	13 x 27	167	16 x 27	178	16 x 33	186	16 x 37	192	16 x 42	201
47	470	13 x 27	198	16 x 32	214	16 x 33	241	16 x 42	253	18 x 43	339	22 x 43	402
100	101	16 x 33	345	16 x 37	368	18 x 43	391	22 x 43	402	25 x 52	424	25 x 52	448
220	221	18 x 42	586	22 x 43	609	22 x 43	632						
330	331	22 x 43	632										