



Aluminum Electrolytic Capacitors

RLA

Features

- 85°C, standard low leakage current series
- 2,000 hours assured
- RoHS Compliance



Sleeve & Marking Color: Orange & Black

SPECIFICATIONS

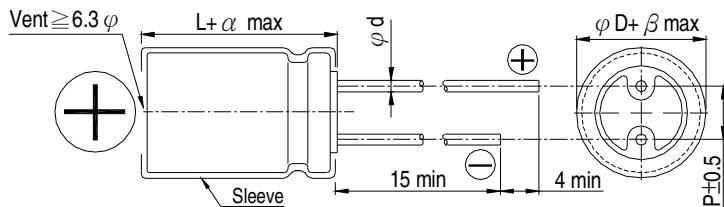
Items	Performance																																												
Category Temperature Range	-40°C ~ +85°C																																												
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																												
Leakage Current (at 20°C)	I = 0.002CV or 0.4 (μ A) whichever is greater (after 2 minutes) Where, C = rated capacitance in μ F V = rated DC working voltage in V																																												
Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <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> </tr> <tr> <td>Tan δ (max)</td> <td>0.24</td> <td>0.21</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> <p>When the capacitance exceeds 1,000 μF, 0.02 shall be added every 1,000 μF increase.</p>									Rated Voltage	6.3	10	16	25	35	50	63	100	Tan δ (max)	0.24	0.21	0.16	0.14	0.12	0.10	0.09	0.08																		
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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"> <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> </tr> <tr> <td>Impedance Ratio</td> <td>Z(-25°C)/Z(+20°C)</td> <td>5</td> <td>4</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>Z(-40°C)/Z(+20°C)</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>									Rated Voltage	6.3	10	16	25	35	50	63	100	Impedance Ratio	Z(-25°C)/Z(+20°C)	5	4	2	2	2	2	2		Z(-40°C)/Z(+20°C)	10	8	6	4	4	3	3									
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Endurance	<table border="1"> <tr> <td>Test Time</td> <td colspan="8">2,000 Hrs</td> </tr> <tr> <td>Capacitance Change</td> <td colspan="8">Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td colspan="8">Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td colspan="8">Within specified value</td> </tr> </table> <p>* The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 hours at 85°C.</p>									Test Time	2,000 Hrs								Capacitance Change	Within ±20% of initial value								Dissipation Factor	Less than 200% of specified value								Leakage Current	Within specified value							
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Ripple Current & Frequency Multipliers	<table border="1"> <tr> <td>Freq.(Hz)</td> <td>60 (50)</td> <td>120</td> <td>500</td> <td>1k</td> <td>10k up</td> </tr> <tr> <td>Cap.(μF)</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Under 100</td> <td>0.70</td> <td>1.00</td> <td>1.35</td> <td>1.55</td> <td>2.00</td> </tr> <tr> <td>100 < C ≤ 1,000</td> <td>0.83</td> <td>1.00</td> <td>1.23</td> <td>1.32</td> <td>1.50</td> </tr> <tr> <td>1,000 up above</td> <td>0.90</td> <td>1.00</td> <td>1.12</td> <td>1.10</td> <td>1.15</td> </tr> </table>									Freq.(Hz)	60 (50)	120	500	1k	10k up	Cap.(μ F)						Under 100	0.70	1.00	1.35	1.55	2.00	100 < C ≤ 1,000	0.83	1.00	1.23	1.32	1.50	1,000 up above	0.90	1.00	1.12	1.10	1.15						
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DIAGRAM OF DIMENSIONS



LEAD SPACING AND DIAMETER							Unit: mm
φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5		0.6			0.8	
α		1.0			1.5		
β			0.5				

Dimension: $\phi D \times L(\text{mm})$

Ripple Current: mA/rms at 120 Hz, 85°C

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V. DC µF	Contents	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
		φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA	φ D×L	mA
0.1	0R1											5x11	1.3			5x11	2.6
0.22	R22											5x11	2.9			5x11	5.8
0.33	R33											5x11	4.4			5x11	8.8
0.47	R47											5x11	7			5x11	12
1	010											5x11	13			5x11	22
2.2	2R2											5x11	29			5x11	33
3.3	3R3											5x11	35			5x11	40
4.7	4R7							5x11	31	5x11	40	5x11	42	5x11	45	5x11	48
10	100					5x11	44	5x11	54	5x11	58	5x11	65	5x11	70	6.3x11	80
22	220			5x11	59	5x11	75	5x11	80	5x11	87	5x11	95	6.3x11	115	8x11.5	135
33	330	5x11	55	5x11	84	5x11	90	5x11	97	5x11	105	6.3x11	125	6.3x11	140	10x12.5	195
47	470	5x11	79	5x11	100	5x11	110	5x11	115	6.3x11	145	6.3x11	150	8x11.5	190	10x16	255
100	101	5x11	130	5x11	145	6.3x11	180	6.3x11	190	8x11.5	240	8x11.5	255	10x12.5	320	12.5x20	450
220	221	6.3x11	230	6.3x11	250	8x11.5	300	8x11.5	320	10x12.5	420	10x16	490	10x20	565	16x25	810
330	331	6.3x11	280	8x11.5	350	8x11.5	370	10x12.5	470	10x16	570	10x20	650	12.5x20	765	16x25	990
470	471	8x11.5	380	8x11.5	415	10x12.5	520	10x16	620	10x20	740	12.5x20	860	12.5x25	990	16x31.5	1,250
1,000	102	10x12.5	650	10x16	790	10x20	910	12.5x20	1,090	12.5x25	1,300	16x25	1,530	16x31.5	1,700		
2,200	222	12.5x20	1,150	12.5x20	1,240	12.5x25	1,420	16x25	1,660	16x31.5	1,890	18x35.5	2,160				
3,300	332	12.5x20	1,380	12.5x25	1,590	16x25	1,840	16x31.5	2,070	18x35.5	2,340						
4,700	472	16x25	1,880	16x25	1,980	16x31.5	2,260	18x35.5	2,520	18x40	2,690						