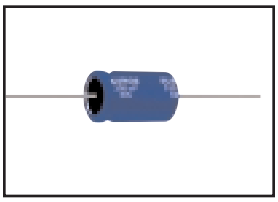
SURGE
Components Inc.
1016 Grand Boulevard
Deer Park, NY 11729 • 631 595-1818 • FAX: 631 595-1283

ALUMINUM ELECTROLYTIC CAPACITORS
NON-POLAR, AXIAL



FEATURES
☐ STANDARD AXIAL LEAD NON-POLARIZED SERIES
☐ SUITABLE FOR USE IN CIRCUITS WHICH HAVE A REVERSED OR UNKNOWN POLARITY

SPECIFICATIONS

<table>
<tr><th>Items</th><th>Performance</th></tr>
<tr><td>Operating Temperature Range</td><td>-40˚C~+85˚C</td></tr>
<tr><td>Capacitance Tolerance</td><td>±20% (at 120 Hz, 20˚C)</td></tr>
<tr><td>Leakage Current (at 20 ˚C)</td><td>I=0.03CV or 3(μA)whichever is greater (after 2 minutes)
Where, C=rated capacitance in μF. V=rated DC working voltage in V.</td></tr>
<tr><td>Dissipation Factor
(Tan δ at 120 Hz, 20 ˚C)</td><td>
<table>
<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>0.25</td><td>0.22</td><td>0.18</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td></tr>
</table>
When the capacitance exceeds 1000μF, 0.02 shall be added every 1000 μF increase.</td></tr>
<tr><td>Low Temperature Characteristics (at 120Hz)</td><td>Impedance ratio shall not exceed the values given in the table below.
<table>
<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></tr>
<tr><td rowspan="2">Impedance Ratio</td><td>Z(-25˚C)/Z(+20˚C)</td><td>4</td><td>3</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr>
<tr><td>Z(-40˚C)/Z(+20˚C)</td><td>8</td><td>6</td><td>6</td><td>4</td><td>4</td><td>3</td><td>3</td><td>3</td></tr>
</table></td></tr>
<tr><td>Load Life Test
(after application of the rated voltage at 85 ˚C, the polarity inverted every 250hrs.)</td><td>
<table>
<tr><td>Test Time</td><td>1000 Hrs</td></tr>
<tr><td>Capacitance Change</td><td>≤ ± 20%</td></tr>
<tr><td>Dissipation Factor</td><td>Less than 200% of specified value</td></tr>
<tr><td>Leakage Current</td><td>Within specified value</td></tr>
</table>
*The above specifications shall be satisfied when the capacitors are restored to 20 ˚C after the rated voltage applied for 1000 hrs at 85˚C.</td></tr>
<tr><td>Shelf Life Test</td><td>
<table>
<tr><td>Test Time</td><td>1000 Hrs</td></tr>
<tr><td>Capacitance Change</td><td>≤ ± 20%</td></tr>
<tr><td>Dissipation Factor</td><td>Less than 200% of specified value</td></tr>
<tr><td>Leakage Current</td><td>Within specified value</td></tr>
</table>
*The above specifications shall be satisfied when the capacitors are restored to 20 ˚C after exposing them for 1000 hrs at 85 ˚C without voltage applied.</td></tr>
<tr><td>Standards</td><td>Satisfies Characteristic W of JIS C 5141</td></tr>
</table>

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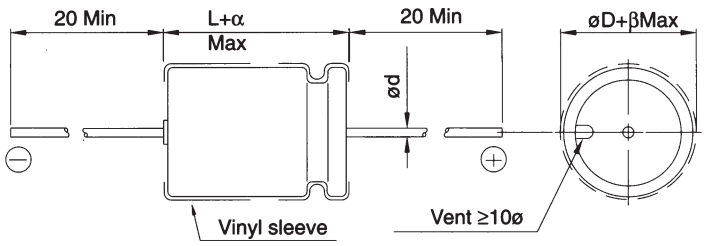
DIAGRAM OF DIMENSIONS



Unit: mm

LEAD DIAMETER

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

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

DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
µF	code	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											6.3 x 13	5	6.3 x 13	5	6.3 x 13	5
0.22	R22											6.3 x 13	7	6.3 x 13	8	6.3 x 13	8
0.33	R33											6.3 x 13	9	6.3 x 13	10	6.3 x 13	10
0.47	R47											6.3 x 13	10	6.3 x 13	12	6.3 x 13	12
1	010											6.3 x 13	16	6.3 x 13	18	6.3 x 13	18
2.2	2R2											6.3 x 13	23	6.3 x 13	27	6.3 x 13	27
3.3	3R3											6.3 x 13	29	6.3 x 13	31	6.3 x 13	35
4.7	4R7											6.3 x 13	34	6.3 x 13	40	6.3 x 13	42
10	100									6.3 x 13	46	6.3 x 13	54	8 x 13	59	8 x 16	69
22	220					6.3 x 13	61	6.3 x 13	69	6.3 x 13	74	8 x 13	89	8 x 16	97	10 x 21	120
33	330			6.3 x 13	71	6.3 x 13	80	8 x 13	85	8 x 16	101	10 x 16	109	10 x 17	139	10 x 21	153
47	470			6.3 x 13	85	8 x 13	95	8 x 13	113	8 x 16	120	10 x 17	152	10 x 21	174	13 x 22	203
100	101	6.3 x 13	118	8 x 13	147	8 x 16	155	10 x 17	192	10 x 21	205	10 x 21	232	13 x 22	269	16 x 27	317
220	221	8 x 16	195	8 x 16	254	10 x 17	268	10 x 21	298	13 x 22	338	13 x 27	381	16 x 27	447	16 x 37	501
330	331	8 x 16	239	10 x 17	312	10 x 21	344	13 x 22	387	13 x 27	433	16 x 27	500	16 x 33	567		
470	471	10 x 17	333	10 x 21	389	13 x 22	436	13 x 27	483	16 x 27	552	16 x 33	618	18 x 42	792		
1000	102	13 x 21	508	13 x 22	603	13 x 27	664	16 x 27	781	16 x 37	857	18 x 42	1054				
2200	222	13 x 27	836	16 x 28	1000	16 x 37	1121	18 x 42	1355								