

SMD ALUMINUM ELECTROLYTIC CAPACITORS

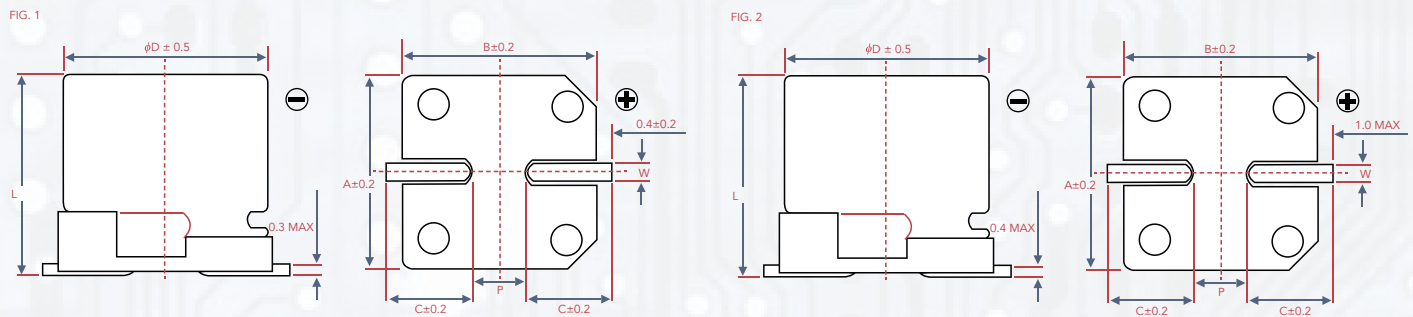
- CVG SERIES -

FEATURES

- 4φ~16φ, 105°C, 2,000 hours assured
- Designed for surface mounting on high density PC board
- RoHS Compliance



CONSTRUCTION AND DIMENSIONS



LEAD SPACING AND DIAMETER

UNIT : MM

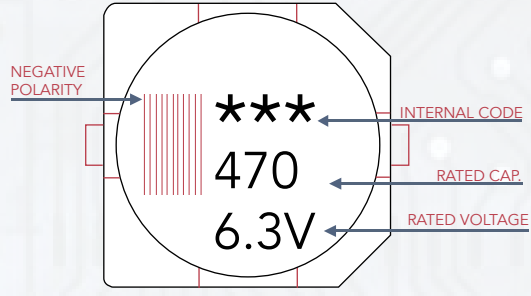
φD	L	A	B	C	W	P±0.2	FIG. NO.
4	5.7±0.3	4.3	4.3	2.0	0.5~0.8	1.0	1
5	5.7±0.3	5.3	5.3	2.3	0.5~0.8	1.5	1
6.3	5.7±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
6.3	7.7±0.3	6.6	6.6	2.7	0.5~0.8	2.0	1
8	10±0.5	8.4	8.4	3.0	0.7~1.1	3.1	1
8	10.3±0.5	8.4	8.4	3.0	0.7~1.1	3.1	1
10	10±0.5	10.4	10.4	3.3	0.7~1.1	4.7	1
10	10.3±0.5	10.4	10.4	3.3	0.7~1.1	4.7	1
12.5	13.5±0.5	12.8	12.8	4.9	1.1~1.4	4.2	2
12.5	16±0.5	12.8	12.8	4.9	1.1~1.4	4.2	2
16	16.5±0.5	16.3	16.3	5.8	1.1~1.4	6.0	2

PART NUMBERS

CVG	1C	100	M	D60	R
SERIES NAME	RATED VOLTAGE	CAPACITANCE	TOLERANCE	CASE SIZE	PACKAGE TYPE
Series is represented by a three/four digit code	OG - 4V OJ - 6.3V 1A - 10V 1C - 16V 1E - 25V 1V - 35V 1H - 50V 1J - 63V 1K - 80V 2A - 100V 2C - 160V 2D - 200V 2E - 250V 2G - 400V 2W - 450V	0R1 - 0.1uF R47 - 0.47uF 010 - 4R7 - 4.7uF 100 - 4 - 47uF 101 - 100uF 4 - 470uF - 1000uF	W: -10% ~+100% T: -10% ~+50% Q: -10% ~+30% V: -10% ~+20% M: -20% ~+20% K: -10% ~+10% J: -5% ~+5%	B55 - 3x5.3 D55 - 4x5.3 D60 - 4x5.7 E55 - 5x5.3 E60 - 5x5.7 F55 - 6.3x5.3 F60 - 6.3x5.7 F62 - 6.3x6.0 F72 - 6.3x7.0 F80 - 6.3x7.7 G68 - 8x6.5 G72 - 8x7.0 G10 - 8x10.0 G12 - 8x12.0 H82 - 10x8.0 H10 - 10x10.0 H13 - 10x13.0 - 12.5x13.5 - 12.5x16.0 L17 - 16x16.5	R - Taping polarity with reel package in 380mm



MARKING



SPECIFICATIONS

ITEMS	PERFORMANCE																																																																											
Operating Temperature Range	-40°C ~ +105°C																																																																											
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																																																											
Leakage Current (at 20°C)	<table border="1"> <tr> <td rowspan="2">6.3~100V</td> <td>4~10φ</td> <td colspan="10">I=0.01CV or 3μA, whichever is greater, after 2 minutes at +20°C</td> </tr> <tr> <td>12.5~16φ</td> <td colspan="10">I=0.03CV or 4μA, whichever is greater, after 2 minutes at +20°C</td> </tr> <tr> <td>160~450V</td> <td>12.5~16φ</td> <td colspan="10">I=0.04CV +100μA after 5 minutes at +20°C</td> </tr> </table> <p>Where I = leakage current C = rated capacitance in μF V = rated DC working voltage in V</p>	6.3~100V	4~10φ	I=0.01CV or 3μA, whichever is greater, after 2 minutes at +20°C										12.5~16φ	I=0.03CV or 4μA, whichever is greater, after 2 minutes at +20°C										160~450V	12.5~16φ	I=0.04CV +100μA after 5 minutes at +20°C																																																	
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Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <tr> <th>RATED VOLTAGE</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>160~250</th> <th>400~450</th> </tr> <tr> <td>4~10φ</td> <td>0.45</td> <td>0.35</td> <td>0.28</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.12</td> <td>-</td> <td>-</td> </tr> <tr> <td>12.5~16φ</td> <td>0.40</td> <td>0.38</td> <td>0.34</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.14</td> <td>0.10</td> <td>0.20</td> <td>0.25</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	160~250	400~450	4~10φ	0.45	0.35	0.28	0.18	0.16	0.14	0.12	0.12	-	-	12.5~16φ	0.40	0.38	0.34	0.26	0.22	0.18	0.14	0.10	0.20	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"> <tr> <th colspan="2"></th> <th colspan="10">RATED VOLTAGE</th> </tr> <tr> <th colspan="2"></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>160~250</th> <th>400~450</th> </tr> <tr> <th rowspan="2">IMPEDANCE RATIO</th> <th>Z(-25°C) / Z(+20°C)</th> <td>4~10φ</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <th>Z(-55°C) / Z(+20°C)</th> <td>12.5~16φ</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>6</td> </tr> <tr> <th colspan="2"></th> <th>4~10φ</th> <td>12</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>-</td> <td>-</td> </tr> <tr> <th colspan="2"></th> <th>12.5~16φ</th> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>10</td> </tr> </table>			RATED VOLTAGE												6.3	10	16	25	35	50	63	100	160~250	400~450	IMPEDANCE RATIO	Z(-25°C) / Z(+20°C)	4~10φ	4	3	2	2	2	2	2	3	-	-	Z(-55°C) / Z(+20°C)	12.5~16φ	5	4	3	2	2	2	2	2	3	6			4~10φ	12	8	6	4	3	3	3	4	-	-			12.5~16φ	10	8	6	4	3	3	3	3	6	10
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Shelf Life Test	Test Time: 1,000 hrs; other items are the same as those for the load life test																																																																											
Other Standards	JIS C 5101-1, -18																																																																											





DIMENSION & PERMISSIBLE RIPPLE CURRENT

μF	VDC CONTENTS	6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)	
		φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.
1	OR1											4x5.7	2		
.22	R22											4x5.7	3		
.33	R33											4x5.7	4		
0.47	R47											4x5.7	5	4x5.7	5
1	1R0											4x5.7	10	4x5.7	8
2.2	2R2											4x5.7	16	4x5.7	12
3.3	3R3											4x5.7	18	5x5.7	17
4.7	4R7							4x5.7	13	4x5.7	16	5x5.7	20	6.3x5.7	22
10	100					4x5.7	17	5x5.7	23	5x5.7	27	6.3x5.7	32	6.3x5.7	32
22	220					5x5.7	30	6.3x5.7	38	6.3x5.7	44	6.3x5.7	47	6.3x5.7	58
33	330			5x5.7	30	6.3x5.7	45	6.3x5.7	50	6.3x5.7	54	6.3x7.7	65	8x10	140
47	470	5x5.7	30	6.3x5.7	48	6.3x5.7	48	6.3x5.7	60	6.3x7.7	80	6.3x7.7	80	8x10 10x10	170 310
100	101	6.3x5.7	69	6.3x5.7	69	6.3x5.7	69	6.3x7.7	100	8x10	320	8x10 10x10	230 375	10x10.3	310
220	221	6.3x7.7	120	6.3x7.7	120	6.3x7.7	120	8x10	320	10x10	375	10x10.3	375	12.5x13.5	470
330	331	8x10	290	8x10	290	8x10	290	10x10	375	10x10.3	410	12.5x16	500	16x16.5	700
470	471	8x10	320	8x10 10x10	320 410	8x10	320	10x10	410	12.5x13.5	520	12.5x16	550	16x16.5	700
1,000	102	10x10	410	10x10.3	410	12.5x13.5	550	12.5x16	550	16x16.5	750				
2,200	222	12.5x13.5	680	12.5x16	750	16x16.5	950	16x16.5	820						
3,300	332	12.5x16	850	16x16.5	1,000	16x16.5	950								
4,700	472	16x16.5	1,000	16x16.5	1,000										
6,800	682	16x16.5	1,000												



DIMENSION & PERMISSIBLE RIPPLE CURRENT

μF	CONTENTS	100V (2A)		160V (2C)		200V (2D)		250V (2E)		400V (2G)		450V (2W)	
		φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.	φDxL	IMP.
3.3	3R3							12.5x13.5	65			12.5x13.5	40
4.7	4R7							12.5x13.5	68	12.5x13.5	50	12.5x13.5	50
10	100					12.5x13.5	80	12.5x13.5	72	12.5x13.5	65	12.5x16	55
22	220	8x10	100			12.5x13.5	90	12.5x13.5	90	16x16.5	85	16x16.5	85
33	330	10x10	150	12.5x13.5	95	12.5x16	110	16x16.5	180				
47	470	12.5x13.5	250	12.5x16	110	16x16.5	220	16x16.5	180				
100	101	12.5x13.5	380	16x16.5	190								
220	221	16x16.5	450										

