

SMD ALUMINUM ELECTROLYTIC CAPACITORS

- CVH SERIES -

FEATURES

- $4\phi \sim 18\phi$, 105°C, 2,000 ~ 5,000 hours assured
- Large capacitance with ultra low impedance capacitors
- Designed for surface mounting on high density PC board
- RoHS Compliance



CONSTRUCTION AND DIMENSIONS

FIG. 1

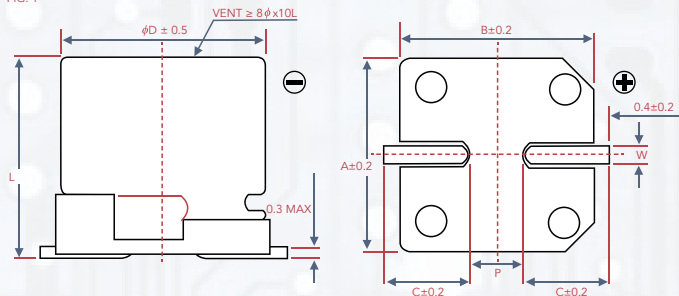
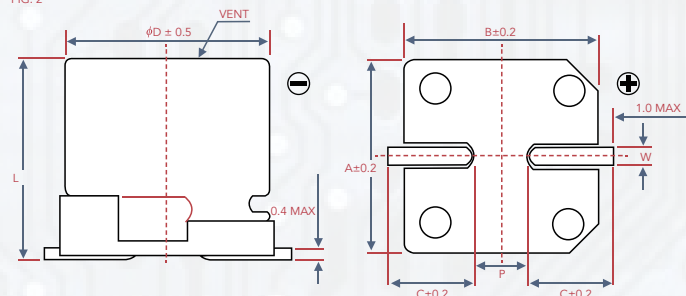


FIG. 2



LEAD SPACING AND DIAMETER

UNIT : MM

ϕD	L	A	B	C	W	$P \pm 0.2$	FIG. NO.
4	5.7±0.3	4.3	4.3	5.1	0.5~0.8	1.0	1
5	5.7±0.3	5.3	5.3	5.9	0.5~0.8	1.5	1
6.3	5.7±0.3	6.6	6.6	7.2	0.5~0.8	2.0	1
6.3	7.7±0.3	6.6	6.6	7.2	0.5~0.8	2.0	1
8	6.5±0.3	8.4	8.4	9.0	0.5~0.8	2.3	1
8	10±0.5	8.4	8.4	9.0	0.7~1.1	3.1	1
10	7.7±0.3	10.4	10.4	11.0	0.7~1.3	4.7	1
10	10±0.5	10.4	10.4	11.0	0.7~1.3	4.7	1
12.5	13.5±0.5	13.0	13.0	13.7	1.1~1.4	4.4	2
12.5	16±0.5	13.0	13.0	13.7	1.1~1.4	4.4	2
16	16.5±0.5	17.0	17.0	18.0	1.1~1.4	6.4	2
16	21.5±0.5	17.0	17.0	18.0	1.1~1.4	6.4	2
18	16.5±0.5	19.0	19.0	20.0	1.1~1.4	6.4	2
18	21.5±0.5	19.0	19.0	20.0	1.1~1.4	6.4	2

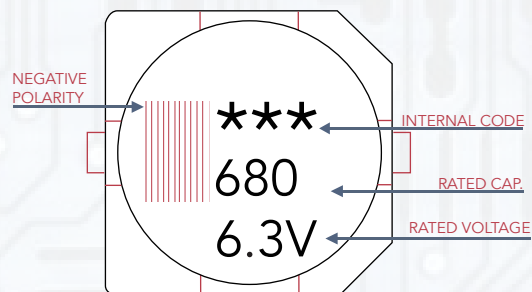
PART NUMBERS

CVH	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	4R7 - 4.7 μ F 100 - 10 μ F 471 - 470 μ F 102 - 1000 μ F	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 K14 - 12.5x13.5 K16 - 12.5x16.0 L17 - 16x16.5	R - Taping polarity with reel package in 380mm

SPECIFICATIONS

ITEMS	PERFORMANCE																																
Category Temperature Range	-55°C ~ +105°C																																
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																
Leakage Current (at 20°C)	$I=0.01CV$ or $3(\mu A)$ whichever is greater (after 2 minutes) Where, C = rated capacitance in μF , V= rated DC working voltage in V																																
Tan δ at 120Hz, 20°C	<table border="1"> <thead> <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>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>TAN δ (MAX)</td> <td>0.30</td> <td>0.26</td> <td>0.22</td> <td>0.16</td> <td>0.13</td> <td>0.10</td> <td>0.08</td> <td>0.08</td> <td>0.07</td> </tr> </tbody> </table> <p>When 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	80	100	TAN δ (MAX)	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07												
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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"> <thead> <tr> <th colspan="2">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>80</th> <th>100</th> </tr> </thead> <tbody> <tr> <td rowspan="2">IMPEDANCE RATIO</td> <td>Z(-25°C) / Z(+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>2</td> </tr> <tr> <td>Z(-55°C) / Z(+20°C)</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	RATED VOLTAGE		6.3	10	16	25	35	50	63	80	100	IMPEDANCE RATIO	Z(-25°C) / Z(+20°C)	4	3	2	2	2	2	2	2	2	Z(-55°C) / Z(+20°C)	8	5	4	3	3	3	3	3	3
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MARKING





DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC CONTENTS μF		6.3V (0J)			10V (1A)			16V (1C)			25V (1E)			35V (1V)			50V (1H)			
		φDxL	IMP.	mA	φDxL	IMP.	mA	φDxL	IMP.	mA	φDxL	IMP.	mA	φDxL	IMP.	mA	φDxL	IMP.	mA	
1	010															4x5.7	2.9	60		
2.2	2R2															4x5.7	2.9	60		
3.3	3R3															4x5.7	2.9	60		
4.7	4R7													4x5.7	1.35	80	5x5.7	1.52	85	
10	100							4x5.7	1.35	80	4x5.7	1.35	80	5x5.7	0.80	150	6.3x5.7	0.88	165	
22	220	4x5.7	1.35	80	4x5.7	1.35	80	5x5.7	0.80	150	5x5.7	0.80	150	6.3x5.7	0.44	230	6.3x5.7	0.88	165	
33	330	4x5.7	1.35	80	5x5.7	0.80	150	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x7.7	0.68	185	
47	470	5x5.7	0.80	150	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x7.7 8x6.5	0.68 0.68	185 185	
68	680													8x6.5	0.36	280	8x10	0.34	369	
100	101	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x7.7 8x6.5	0.36 0.36	280 280	8x10	0.17	450	8x10 10x10	0.34 0.18	369 553	
150	151	6.3x5.7	0.44	230	6.3x5.7	0.44	230	6.3x7.7 8x6.5	0.36 0.36	280 280	8x10	0.17	450	8x10 10x7.7	0.17 0.17	450 450	10x10	0.18	553	
220	221	6.3x7.7	0.36	280	6.3x7.7 8x6.5	0.36 0.36	280 280	6.3x7.7	0.36	280	8x10 10x7.7	0.17 0.17	450 450	8x10 10x10	0.17 0.09	450 670	10x10	0.09	670	
330	331	8x6.5 8x10	0.36 0.17	280 450	8x10 10x7.7	0.17 0.17	450 450	8x10 10x7.7	0.17 0.17	450 450	8x10	0.17	450	10x10 12.5x13.5	0.09 0.070	670 820	12.5x13.5	0.12	650	
470	471	8x10 10x7.7	0.17 0.17	450 450	8x10 10x7.7	0.17 0.17	450 450	8x10 10x10	0.17 0.09	450 670	10x10	0.09	670	12.5x16	0.060	950	16x16.5	0.073	1,000	
680	681	8x10 10x7.7	0.17 0.17	450 450	10x10	0.09	670	10x10	0.09	670	12.5x13.5	0.070	820	12.5x16	0.060	950	16x16.5	0.073	1,000	
1,000	102	8x10	0.17	450	10x10	0.09	670	12.5x13.5	0.070	820	12.5x16	0.060	950	16x16.5	0.054	1,260	18x16.5	0.066	1,500	
1,500	152	10x10	0.09	670	12.5x13.5	0.070	820	12.5x16	0.060	950	16x16.5	0.054	1,260	18x16.5 16x21.5	0.048 0.038	1,500 1,630	18x21.5	0.05	1,620	
2,200	222	12.5x13.5	0.070	820	12.5x16	0.060	950	16x16.5	0.054	1,260	16x16.5	0.054	1,260	18x21.5	0.038	1,750				
3,300	332	12.5x16	0.060	950	16x16.5	0.054	1,260	16x16.5 16x21.5	0.054 0.038	1,260 1,630	18x16.5 16x21.5	0.048 0.038	1,500 1,750							
4,700	472	16x16.5	0.054	1,260	16x16.5	0.054	1,260	18x16.5 16x21.5	0.048 0.038	1,500 1,630										
6,800	682	18x16.5 16x21.5	0.048 0.038	1,500 1,630	18x16.5 16x21.5	0.048 0.038	1,500 1,630													
8,200	822	18x16.5 16x21.5	0.048 0.038	1,500 1,630	18x21.5	0.038	1,750													



DIMENSION & PERMISSIBLE RIPPLE CURRENT

VDC CONTENTS μF		63V (1J)			80V (1K)			100V (2A)		
		$\phi\text{D}\times\text{L}$	IMP.	mA	$\phi\text{D}\times\text{L}$	IMP.	mA	$\phi\text{D}\times\text{L}$	IMP.	mA
4.7	4R7	5x5.7	1.90	70						
10	100	6.3x5.7	1.20	130						
22	220	6.3x7.7	0.90	150	8x10	1.3	130	8x10	1.3	130
33	330	8x10	0.50	280	8x10	1.3	130	10x10	0.7	200
47	470	8x10	0.50	280	10x10	0.7	200	10x10	0.7	200
100	101	10x10	0.25	450	10x10	0.7	200	12.5x13.5	0.32	450
150	151	12.5x13.5	0.15	700	12.5x13.5	0.32	450	12.5x16	0.26	550
220	221	12.5x13.5	0.15	700	12.5x16	0.26	550	16x16.5 18x21.5	0.17 0.15	650 950
330	331	16x16.5	0.082	900	16x16.5	0.17	650	18x16.5 16x21.5	0.15 0.15	850 900
470	471	16x16.5	0.082	900	16x21.5	0.15	900	18x21.5	0.15	950
680	681	18x16.5 16x21.5	0.080 0.080	1,150 1,150	18x21.5	0.15	950			
1,000	102	18x21.5	0.06	1,250						

