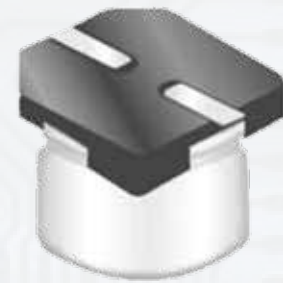


SMD ALUMINUM ELECTROLYTIC CAPACITORS

- CV2 -

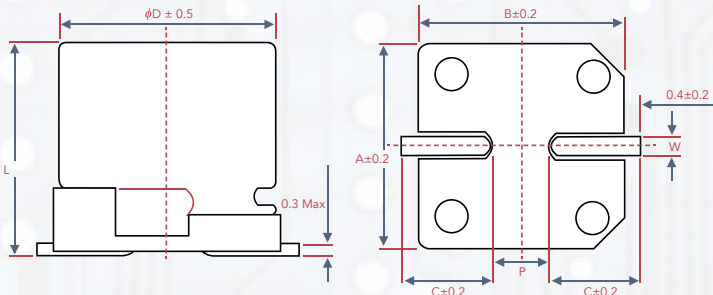
FEATURES

- 3~10φ, 85°C, 2,000 hours assured
- Chip type large capacitance capacitors
- 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
3	5.3±0.2	3.3	3.3	1.5	0.45-0.75	0.8
4	5.3±0.2	4.3	4.3	2.0	0.5 to 0.8	1.0
5	5.3±0.2	5.3	5.3	2.3	0.5 to 0.8	1.5
6.3	5.3±0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
6.3	7.7±0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
8	6.5±0.2	8.4	8.4	3.4	0.5 to 0.8	2.3
8	10±0.5	8.4	8.4	3.0	0.7 to 1.1	3.1
10	10±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7
10	10.3±0.5	10.4	10.4	3.3	0.7 to 1.1	4.7

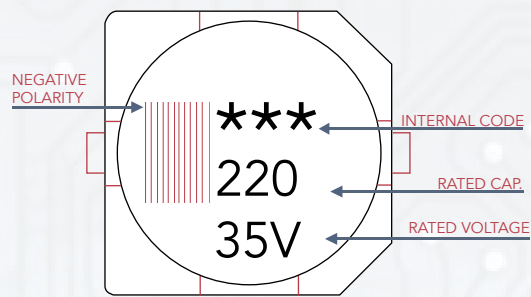
SPECIFICATIONS

ITEMS	PERFORMANCE																														
Operating Temperature Range	-40°C ~ +85°C																														
Capacitance Tolerance	±20% (at 120Hz, 20°C)																														
Leakage Current (at 20°C)	I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes) Where, C= rated capacitance in μF. V= rated DC working voltage in V																														
Dissipation Factor (Tan δ at 120Hz, 20°C)	<table border="1"> <thead> <tr> <th>RATED VOLTAGE</th> <th>4</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> </tr> </thead> <tbody> <tr> <td>TAN δ (MAX)</td> <td>0.42</td> <td>0.28</td> <td>0.24</td> <td>0.20</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table>	RATED VOLTAGE	4	6.3	10	16	25	35	50	63	100	TAN δ (MAX)	0.42	0.28	0.24	0.20	0.14	0.12	0.10	0.10	0.10										
RATED VOLTAGE	4	6.3	10	16	25	35	50	63	100																						
TAN δ (MAX)	0.42	0.28	0.24	0.20	0.14	0.12	0.10	0.10	0.10																						
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table border="1"> <thead> <tr> <th>RATED VOLTAGE</th> <th>4</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> </tr> </thead> <tbody> <tr> <td>IMPEDANCE RATIO</td> <td>Z(-25°C)/Z(+20°C)</td> <td>7</td> <td>4</td> <td>3</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>15</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	RATED VOLTAGE	4	6.3	10	16	25	35	50	63	100	IMPEDANCE RATIO	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	2		Z(-40°C)/Z(+20°C)	15	8	5	4	3	3	3	3
RATED VOLTAGE	4	6.3	10	16	25	35	50	63	100																						
IMPEDANCE RATIO	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	2																						
	Z(-40°C)/Z(+20°C)	15	8	5	4	3	3	3	3																						
Load Life Test	<table border="1"> <tbody> <tr> <td>TEST TIME</td> <td>2,000 Hrs</td> </tr> <tr> <td>CAPACITANCE CHANGE</td> <td>Within ±20% of initial value (4WV: ±30%)</td> </tr> <tr> <td>DISSIPATION FACTOR</td> <td>Less than 200% of specified value (4WV: ±300%)</td> </tr> <tr> <td>LEAKAGE CURRENT</td> <td>Within specified value</td> </tr> </tbody> </table> <p>*The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hrs at 85°C.</p>	TEST TIME	2,000 Hrs	CAPACITANCE CHANGE	Within ±20% of initial value (4WV: ±30%)	DISSIPATION FACTOR	Less than 200% of specified value (4WV: ±300%)	LEAKAGE CURRENT	Within specified value																						
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LEAKAGE CURRENT	Within specified value																														
Shelf Life Test	Test time: 1,000hrs; other items are the same as those for the load life test																														
Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>V.DC(V)</th> <th colspan="4">FREQ.(Hz)</th> </tr> <tr> <th></th> <th>50</th> <th>120</th> <th>1K</th> <th>10K up</th> </tr> </thead> <tbody> <tr> <td>Under 16</td> <td>0.8</td> <td>1.0</td> <td>1.15</td> <td>1.25</td> </tr> <tr> <td>25 - 35</td> <td>0.8</td> <td>1.0</td> <td>1.25</td> <td>1.40</td> </tr> <tr> <td>50 - 63</td> <td>0.8</td> <td>1.0</td> <td>1.35</td> <td>1.50</td> </tr> <tr> <td>100</td> <td>0.7</td> <td>1.0</td> <td>1.35</td> <td>1.50</td> </tr> </tbody> </table>	V.DC(V)	FREQ.(Hz)					50	120	1K	10K up	Under 16	0.8	1.0	1.15	1.25	25 - 35	0.8	1.0	1.25	1.40	50 - 63	0.8	1.0	1.35	1.50	100	0.7	1.0	1.35	1.50
V.DC(V)	FREQ.(Hz)																														
	50	120	1K	10K up																											
Under 16	0.8	1.0	1.15	1.25																											
25 - 35	0.8	1.0	1.25	1.40																											
50 - 63	0.8	1.0	1.35	1.50																											
100	0.7	1.0	1.35	1.50																											
Other Standards	JIS C 5101-1, -18																														

PART NUMBERS

CV2	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	4R7 - 4.7μF 100 - 10μF 471 - 470μF 102 - 1000μF	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

MARKING



DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC CONTENTS μF	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)		
	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	φDxL	mA	
0.1	OR1													4x5.3	3				
0.22	R22													4x5.3	5				
0.33	R33													4x5.3	6				
0.47	R47													4x5.3	7				
1	010												3x5.3	4x5.3	14	8			
2.2	2R2													4x5.3	11				
3.3	3R3											3x5.3	8	4x5.3	19				
4.7	47								4x5.3	19	4x5.3	14	4x5.3	20					
													5x5.3	26					
10	100					4x5.3	23	4(3)x5.3	26(14)	4x5.3	14	4x5.3	18	5x5.3	34	8x6.5	75	8x10	94
												5x5.3	34	6.3x5.3	44				
22	220	3x5.3	14	4x5.3	23	4x5.3	28	4x5.3	30	5x5.3	25	5x5.3	47	6.3x5.3	42	8x10	139	10x10	189
						5x5.3	39	5x5.3	44			6.3x5.3	29	*8x6.5	155(65)				
33	330	4x5.3	31	4x5.3	31	4x5.3	33	6.3x5.3	63	5x5.3	54	6.3x5.3	67	6.3x7.7	82	8x10	139	10x10	189
						5x5.3	48			6.3x5.3	67	*8x6.5	155(85)	*8x6.5	155(82)				
47	470	4x5.3	34	4x5.3	37	5x5.3	39	5x5.3	52	6.3x5.3	48	6.3x7.3	55	6.3x7.7	98	10x10	140		
						5x5.3	50	6.3x5.3	67	6.3x5.3	75	*8x6.5	80	*8x10	252(98)				
68	680	5x5.3	54	6.3x5.3	89	5x5.3	63	6.3x5.3	98	6.3x5.3	103	6.3x7.7	109			10x10	226		
						6.3x5.3	98			*8x6.5	155(109)	*8x6.5	155(109)						
100	101	5x5.3	58	5x5.3	63	5x5.3	65	6.3x5.3	110	6.3x7.7	91			8x10	145				
												6.3x7.7	80			10x10	226		
		6.3x5.3	89	6.3x5.3	98	6.3x5.3	110	*8x6.5	155(108)	*8x6.5	155(124)			10x10	458				
						*8x6.5	155(108)												
220	221	6.3x5.3	110	6.3x5.3	110	6.3x7.7	124	*8x10	252(124)	8x10	175	10x10	458	10x10	220				
						*8x6.5	155(123)	*8x6.5	155(130)										
330	331			*8x6.5	155(139)	8x10	252	8x10	252	10x10	458	10x10	300	10x13	295				
												10x13	300	12.5x13.5	420				
470	471			8x10	252	10x10	458	8x10	270			10x10.5	310	8x10	252	12.5x13.5	470		
												10x13	375	10x10	458				
680	681											12.5x13.5	470						
1,000	102			10x10	458	10x10	458	10x10	315										
1,500	152			10x10.3	458														

*6.3 x 7.7 is available and () is its ripple current.

