

SMD ALUMINUM ELECTROLYTIC CAPACITORS

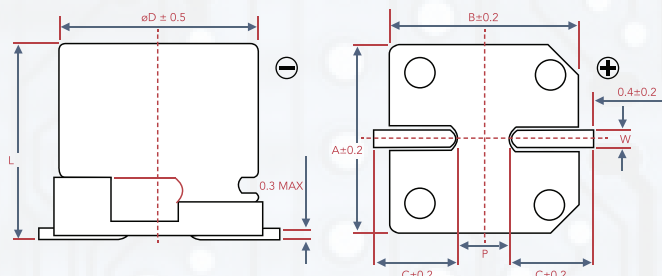
- CVK SERIES -

FEATURES

- 4Ø~10Ø, 105°C, 2,000-5,000 hours assured
- Designed for surface mounting on high density PC board
- RoHS Compliance



CONSTRUCTION AND DIMENSIONS



LEAD SPACING AND DIAMETER

øD	L	A	B	C	W	P ± 0.2
4	5.7±0.3	4.3	4.3	2.0	0.5~0.8	1.0
5	5.7±0.3	5.3	5.3	2.3	0.5~0.8	1.5
6.3	5.7±0.3	6.3	6.3	2.7	0.5~0.8	2.0
8	10±0.5	8.4	8.4	3.0	0.7~1.1	3.1
10	10±0.5	10.4	10.4	3.3	0.7~1.1	4.7

SPECIFICATIONS

ITEM	SPECIFICATION																																
Operating Temperature Range	-55°C ~ +105°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><tr><td>RATED VOLTAGE</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td></tr><tr><td>4 ~ 6.3ø</td><td>0.32</td><td>0.28</td><td>0.24</td><td>0.18</td><td>0.15</td><td>0.14</td></tr><tr><td>8 ~ 10ø</td><td>0.30</td><td>0.26</td><td>0.22</td><td>0.16</td><td>0.13</td><td>0.12</td></tr></table>	RATED VOLTAGE	6.3	10	16	25	35	50	4 ~ 6.3ø	0.32	0.28	0.24	0.18	0.15	0.14	8 ~ 10ø	0.30	0.26	0.22	0.16	0.13	0.12											
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Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <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></tr><tr><td>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></tr><tr><td></td><td>Z(-40°C) / Z(+20°C)</td><td>8</td><td>5</td><td>4</td><td>3</td><td>3</td></tr></table>	RATED VOLTAGE	6.3	10	16	25	35	50	IMPEDANCE RATIO	Z(-25°C) / Z(+20°C)	4	3	2	2	2		Z(-40°C) / Z(+20°C)	8	5	4	3	3											
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Load Life Test	<table><tr><td>TEST TIME</td><td colspan="2">2,000 Hrs (4~6.3Ø)</td><td colspan="2">5,000 Hrs (8~10Ø)</td></tr><tr><td rowspan="3">CAPACITANCE CHANGE</td><td>6.3V</td><td>Within ±30% of initial value</td><td colspan="2">Within ±30% of initial value</td></tr><tr><td>10 ~ 16V</td><td>Within ±25% of initial value</td><td colspan="2">Within ±30% of initial value</td></tr><tr><td>25 ~ 50V</td><td>Within ±20% of initial value</td><td colspan="2">Within ±30% of initial value</td></tr><tr><td rowspan="2">DISSIPATION FACTOR</td><td>6.3 ~ 16V</td><td>Less than 300% of specified value</td><td colspan="2">Less than 300% of specified value</td></tr><tr><td>25 ~ 50V</td><td>Less than 200% of specified value</td><td colspan="2">Less than 300% of specified value</td></tr><tr><td>LEAKAGE CURRENT</td><td colspan="2">Within specified value</td><td colspan="2">Within specified value</td></tr></table>	TEST TIME	2,000 Hrs (4~6.3Ø)		5,000 Hrs (8~10Ø)		CAPACITANCE CHANGE	6.3V	Within ±30% of initial value	Within ±30% of initial value		10 ~ 16V	Within ±25% of initial value	Within ±30% of initial value		25 ~ 50V	Within ±20% of initial value	Within ±30% of initial value		DISSIPATION FACTOR	6.3 ~ 16V	Less than 300% of specified value	Less than 300% of specified value		25 ~ 50V	Less than 200% of specified value	Less than 300% of specified value		LEAKAGE CURRENT	Within specified value		Within specified value	
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	*The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000/5,000 hrs at 105°C.																																
Shelf Life Test	Test Time: 1,000 hrs; other items are the same as those for the load life test																																
Ripple Current & Frequency Multipliers	<table><tr><td>V.D.C. (V)</td><td>FREQ (Hz)</td><td>50, 60</td><td>120</td><td>1K</td><td>10K up</td></tr><tr><td>Under 16</td><td></td><td>0.8</td><td>1.0</td><td>1.15</td><td>1.25</td></tr><tr><td>25 ~ 35</td><td></td><td>0.8</td><td>1.0</td><td>1.25</td><td>1.40</td></tr><tr><td>50 ~ 63</td><td></td><td>0.8</td><td>1.0</td><td>1.35</td><td>1.50</td></tr><tr><td>100</td><td></td><td>0.7</td><td>1.0</td><td>1.35</td><td>1.50</td></tr></table>	V.D.C. (V)	FREQ (Hz)	50, 60	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		
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Other Standards	Satisfies Characteristic W of JIS C 5101-1, -18																																

PART NUMBERING

CVK	1C	100	M	D55	R
SERIES NAME	RATED VOLTAGE	CAPACITANCE	TOLERANCE	CASE SIZE	PACKAGE TYPE
Series is represented by a two or three digit code.	OG - 4V OJ - 6.3V 1A - 10V 1C - 16V 1E - 25V 1V - 35V 1H - 50V 1J - 63V 1K - 80V 2A - 100V 2E - 250V	0R1 - 0.1μF R47 - 0.47μF 010 - 1μF 4R7 - 4.7μF 100 - 10μF 47 - 470μF 101 - 100μF 471 - 470μF 102 - 1000μF	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 F82-6.3x10.5 G68-8x6.5 G72-8x7.0 G10-8x10.0 G11-8x10.5 G12-8x12.0 H82-10x8.0 H10-10x10.0 H11-10x10.5 H13-10x13.0 K14-12.5x13.5 K16-12.5x16.0 L17-16x16.5	R - Taping polarity with reel package in 380mm



DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)
Ripple Current: mA/Rms at 120 Hz, 105°C

VDC CONTENTS μF		6.3V (OJ)		10V (1A)		16V (1A)		25V (IE)		35V (IV)		50V (1H)		250V (2E)	
		$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	OR1											4x5.7	2		
0.22	R22											4x5.7	3		
0.33	R33											4x5.7	4		
0.47	R47											4x5.7	5		
1	0.10											4x5.7	10		
2.2	2R2											4x5.7	16	6.3x10.5	56
3.3	3R3											4x5.7	18		
4.7	4R7					4x5.7	13	4x5.7	13	4x5.7	13	5x5.7	22	8x10.5	96
10	100			4x5.7	13	4x5.7	16	5x5.7	23	5x5.7	25	6.3x5.7	178		
22	220	4x5.7	13	5x5.7	30	5x5.7	30	6.3x5.7	38	6.3x5.7	50	8x10	178		
33	330	5x5.7	30	5x5.7	30	6.3x5.7	40	6.3x5.7	48	8x10	178	8x10	178		
												8x10.5	130		
47	470	5x5.7	36	6.3x5.7	43	6.3x5.7	50	8x10	178	8x10	178	8x10	178		
100	101	6.3x5.7	61	8x10	178	6.3x7.7	81	8x10	178	10x10	324	10x10	160		
						8x10	178								
220	221	8x10	178	8x10	178	8x10	178	8x10	240	8x10.5	320	10x10.5	280		
								8x10.5	290	10x10	324				
330	331	8x10	178	10x10	324	10x10	324	10x10	324	10x10	324				
470	471	10x10	324	10x10	324	10x10	324								

