

SMD ALUMINUM ELECTROLYTIC CAPACITORS

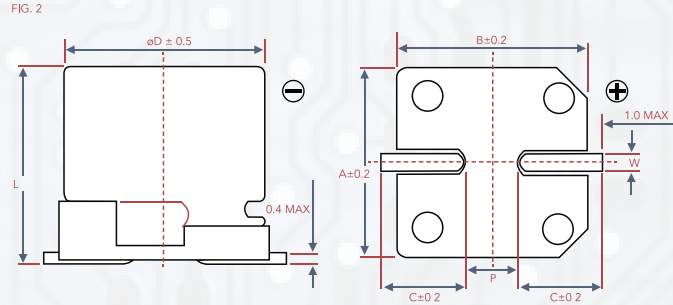
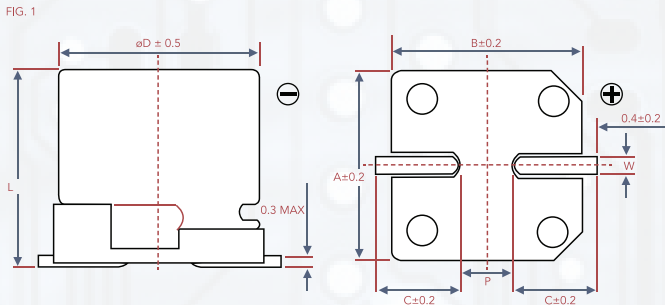
- CVG SERIES -

FEATURES

- 4Ø~16Ø, 105°C, 2,000 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	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	13.5±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 NUMBER

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	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 - 1uF 4R7 - 4.7uF 100 - 10uF 470 - 47uF 101 - 100uF 471 - 470 uF 102 - 1000uF	M: -20% ~+20%	D60- 4X5.7 E60 - 5X5.7 F60 - 6.3X5.7 F80 - 6.3X7.7 G10- 8X10.0 H10- 10X10.0 H14- 10X13.5 K14 - 12.5X13.5 K16 - 12.5X16.0 L17 - 16X16.5	R - Tape & Reel

SPECIFICATIONS

ITEM	SPECIFICATION												
Operating Temperature Range	-40°C ~ +105°C												
Capacitance Tolerance	±20% (at 120Hz, 20°C)												
Leakage Current (at 20°C)	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	I=0.04CV + 100μA after 5 minutes at +20°C											
Where I = leakage current I C = rated capacitance in μF I V = rated DC working voltage in V													
Dissipation Factor Tan δ at 120Hz, 20°C	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											
When the capacitance exceeds 1,000 μF, 0.02 shall be added every 1,000 μF increase													
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.												
	IMPEDANCE RATIO	RATED VOLTAGE											
		Z(-25°C) / Z(+20°C)	4 ~ 10ϕ	4	3	2	2	2	2	2	3	-	-
		Z(-40°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	
Load Life Test	TEST TIME	2,000 Hrs											
	CAPACITANCE CHANGE	4~6.3ϕ : Within ±25% of initial value 8~16ϕ : Within ±20% of initial value											
	DISSIPATION FACTOR	Less than 200% of specified value											
	LEAKAGE CURRENT	Within specified value											
*The above specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hrs at 105°C.													
Shelf Life Test	Test Time: 1,000 hrs; other items are the same as those for the load life test												
Other Standards	JIS C 5101-1, -18												

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: ϕD x L (mm)
Ripple Current: mA/Rms at 120 Hz, 105°C

VDC CONTENTS μF	6.3V (OJ)		10V (1A)		16V (1A)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		
	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	
0.1	0R1										4x5.7	2			
0.22	R22										4x5.7	3			
0.33	R33										4x5.7	4			
0.47	R47										4x5.7	5	4x5.7	5	
1	0.10										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	170
													10x10	310	
100	101	6.3x5.7	69	6.3x5.7	69	6.3x5.7	69	6.3x7.7	100	8x10	320	8x10	230	10x10.3	310
												10x10	375		
220	221	6.3x7.7	120	6.3x7.7	120	6.3x5.7	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	320	8x10	320	10x10	410	12.5x13.5	520	12.5x16	550	16x16.5	700
				10x10	410										
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	470	16x16.5	1,000	16x16.5	1,000										
6,800	682	16x16.5	1,000												

VDC CONTENTS μF	100V (2A)		160V (2C)		200V (2D)		250V (2E)		400V (2G)		450V (2W)	
	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA	ϕDxL	mA
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									

