Aluminum Electrolytic Capacitors RGA

Features

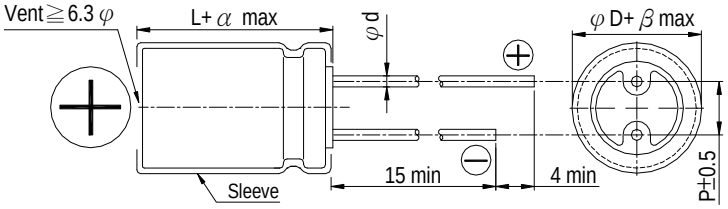
- 105℃, for general purpose, standard series
- RoHS Compliance
- If there is any requirement on ESR, it's suggested to use low ESR series instead of RGA. Please consult our contact window for any inquiry.

Sleeve & Marking Color: Green & Black
Black & White

SPECIFICATIONS

Items	Performance
Category Temperature Range	-40℃ ~+105℃
Capacitance Tolerance	±20% (at 120Hz, 20℃)
Leakage Current (at 20℃)	Rated voltage: ≦100V / >100V Time: after 2 minutes / after 5 minutes Leakage Current: I = 0.01CV or 3 (μA) whichever is greater / CV ≦ 1,000 I = 0.03CV+15(μA) / CV > 1,000 I = 0.02CV+25(μA) Where, C = rated capacitance in μF V = rated DC working voltage in V
Dissipation Factor (Tan δ at 120 Hz, 20℃)	Rated Voltage: 6.3 10 16 25 35 50 63 100 160 200 250 350 400 450 Tan δ (max): 0.23 0.20 0.16 0.14 0.12 0.10 0.09 0.08 0.12 0.14 0.17 0.20 0.25 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. Rated Voltage: 6.3 10 16 25 35 50 63 100 160 200 250 350 400 450 Impedance Ratio Z(-25℃)/Z(+20℃) φD<16: 4 3 3 2 2 2 2 2 3 6 8 12 14 16 Impedance Ratio Z(-25℃)/Z(+20℃) φD≧16: 6 4 4 3 3 3 3 3 Impedance Ratio Z(-40℃)/Z(+20℃) φD<16: 8 6 6 4 4 3 3 3 4 8 10 16 18 20 Impedance Ratio Z(-40℃)/Z(+20℃) φD≧16: 12 10 8 8 8 8 6 6
Endurance	Test Time: 2,000 Hrs Capacitance Change: 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℃ after the rated voltage applied with rated ripple current for 2,000 hours at 105℃.
Shelf Life Test	Test Time: 1,000 Hrs Capacitance Change: 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℃ after exposing them for 1,000 hours at 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements for 160 ~ 450V (Refer to JIS C 5101-4 4.1).
Ripple Current & Frequency Multipliers	Freq.(Hz) / Cap.(μF): 60(50) 120 500 1k 10k up Under 100: 0.70 1.00 1.30 1.40 1.50 100 < C ≦ 1,000: 0.75 1.00 1.20 1.30 1.35 1,000 up above: 0.80 1.00 1.10 1.12 1.15

DIAGRAM OF DIMENSIONS



LEAD SPACING AND DIAMETER Unit: mm

φD	5	6.3	8	10	12.5	16	18	20	22	25
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	10	12.5
φd	0.5		0.6			0.8		1.0		
α	1.0			1.5				2.0		
β	0.5									

DIMENSION & PERMISSIBLE RIPPLE CURRENT

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

V. DC / μF	Contents	6.3V (0J)				10V (1A)				16V (1C)				25V (1E)			
		φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA
4.7	4R7													5×11	26		
10	100									5×11	35			5×11	43		
22	220					5×11	49			5×11	58			5×11	62		
33	330	5×11	54			5×11	60			5×11	71			5×11	76		
47	470	5×11	65			5×11	76			5×11	85			5×11	97		
100	101	5×11	95			5×11	105			6.3×11	133	5×11	110	6.3×11	142		
220	221	6.3×11	160	5×11	140	6.3×11	175			8×11.5	215	6.3×11	190	8×11.5	236		
330	331	8×11.5	195	6.3×11	190	8×11.5	245	6.3×11	200	8×11.5	270			10×12.5	335	8×11.5	310
470	471	8×11.5	270	6.3×11	230	8×11.5	290			10×12.5	370	8×11.5	310	10×16	440	10×12.5	380
1,000	102	10×12.5	460	8×11.5	380	10×16	550	10×12.5	460	10×20	640	10×16	560	10×20 12.5×20	680 770	12.5×16	590
2,200	222	10×16 10×20	690 710	12.5×16	700	10×20 12.5×20	760 860	12.5×16	690	12.5×20 12.5×25	920 1,000	16×16	830	12.5×25 16×25	1,110 1,170	16×20	970
3,300	332	12.5×20	960	10×20	840	12.5×20	1,100	16×16	940	12.5×25 16×25	1,170 1,300	16×16 16×20	950 1,050	16×25 16×31.5	1,440 1,460	18×20	1,220
4,700	472	12.5×20 16×25	1,090 1,330	16×16	1,010	12.5×25 16×25	1,260 1,400	16×16 16×20	1,060 1,120	16×25 16×31.5	1,480 1,600	16×20 18×20	1,185 1,260	16×31.5 18×35.5	1,710 1,780	18×25	1,470
6,800	682	12.5×25 16×25	1,460 1,640	16×20	1,190	16×25 16×31.5	1,690 1,880	16×20 18×20	1,270 1,330	16×31.5 18×35.5	1,930 2,170	18×25	1,650	18×40	2,280	18×35.5	2,160
10,000	103	16×25 16×31.5	1,990 2,200	16×20 18×20	1,340 1,440	16×31.5 16×35.5	2,220 2,400	18×25	1,800	18×35.5	2,640	18×31.5	2,330	22×40	2,720		
15,000	153	18×35.5	2,780	16×35.5	2,500	18×35.5	2,780	16×35.5	2,500	18×40	2,950						
22,000	223	18×40	3,100	18×35.5	2,930	18×40	3,100			22×40	3,460						

V. DC / μF	Contents	35V (1V)				50V (1H)				63V (1J)				100V (2A)			
		φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA
0.1	0R1					5×11	3.2			5×11	3.5			5×11	4		
0.22	R22					5×11	4.9			5×11	5.1			5×11	6		
0.33	R33					5×11	6			5×11	7.5			5×11	8		
0.47	R47					5×11	7.1			5×11	9			5×11	9		
1	010					5×11	13			5×11	15			5×11	15		
2.2	2R2					5×11	20			5×11	30			5×11	30		
3.3	3R3					5×11	30			5×11	31			5×11	31		
4.7	4R7	5×11	30			5×11	33			5×11	36			6.3×11	40		
10	100	5×11	46			5×11	50			5×11	54			8×11.5	66	6.3×11	54
22	220	5×11	71			5×11	78			6.3×11	86			8×11.5	99	6.3×11	93
33	330	6.3×11	90	5×11	75	6.3×11	96	5×11	90	8×11.5	114	6.3×11	100	10×12.5	148	8×11.5	130
47	470	6.3×11	110	5×11	90	6.3×11	120			8×11.5	141	6.3×11	130	10×16	180	10×12.5	165
100	101	8×11.5	180	6.3×11	150	8×11.5	188			10×12.5	235			12.5×20	320	10×20	265
220	221	10×12.5	300	8×11.5	270	10×16	300	10×12.5	240	10×20	450	10×16	335	16×25	570	12.5×25	440
330	331	10×16	400	10×12.5	350	10×20	460	10×16	410	12.5×20	540	10×20	510	16×31.5	700	16×25	570
470	471	10×20	520	10×16	460	10×20 12.5×25	530 610	12.5×16 16×16	425 535	12.5×25	720	12.5×20	640	18×35.5	880	16×31.5	715
1,000	102	12.5×20 12.5×25	810 920	12.5×16 16×16	600 720	12.5×25 16×25	950 1,080	16×20	830	16×31.5	1,210	16×25	930	22×40	1,760	18×40	985
2,200	222	16×25 16×31.5	1,260 1,340	18×20	1,110	18×35.5	1,600	16×35.5	1,470	18×40	2,340						
3,300	332	16×31.5 16×35.5	1,420 1,610	18×25	1,570	22×40	2,290	18×35.5	1,770	22×40	2,510						
4,700	472	18×40	1,920	18×35.5	1,900	25×40	2,610	22×40	2,340	25×40	3,000						

Remark: The Case size 12.5×16, 16×16, 16×20, 18×20 and 18×25 are used flat type rubber bung. Case size in mark of "*" is downsize.

DIMENSION & PERMISSIBLE RIPPLE CURRENT

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

V. DC / μF	Contents	160V (2C)				200V (2D)				250V (2E)				350V (2V)			
		φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA
0.47	R47	6.3×11	13	5×11	11	6.3×11	14	5×11	12	8×11.5	18	5×11	11	8×11.5	18	6.3×11	16
1	010	6.3×11	20	5×11	17	6.3×11	21	5×11	18	8×11.5	27	5×11	16	8×11.5	27	6.3×11	23
2.2	2R2	6.3×11	29	5×11	25	8×11.5	37	6.3×11	30	8×11.5	41	6.3×11	35	10×16	53	8×11.5	41
3.3	3R3	8×11.5	42	6.3×11	36	8×11.5	45	6.3×11	39	8×11.5	50	6.3×11	40	10×12.5	59	8×11.5	50
4.7	4R7	8×11.5	50	6.3×11	43	8×11.5	54	6.3×11	43	10×16	93	8×11.5	60	10×16	93	10×12.5	65
10	100	10×12.5	87	8×11.5	73	10×20	115	10×12.5	94	10×16	115	10×12.5	92	10×20	125	10×16	115
22	220	10×20	158	10×16	135	10×20	170	10×16	142	10×20 12.5×20	200 220	12.5×16	200	12.5×25	235	12.5×20	220
33	330	12.5×20	225	10×20	190	12.5×20 12.5×25	240 265	12.5×16 16×16	215 250	12.5×20 12.5×25	315 348	16×16	250	16×31.5	365	16×25	325
47	470	12.5×20 12.5×25	265 295	12.5×16 16×16	230 275	12.5×20 12.5×25	270 315	16×16 16×20	275 300	12.5×25 16×25	350 365	16×20	320	16×31.5	395	16×25	365
68	680			16×20	330	18×20	350	16×20	330			18×20	350				
100	101	12.5×25 16×25	425 485	16×20 18×20	395 420	16×25 16×35.5	485 565	18×25	420	16×35.5	610			18×40	530	16×31.5	450
150	151			18×25	510												
220	221	18×35.5	750	16×31.5	660	18×40	885	18×35.5	835	18×40	885	18×35.5	835				
330	331	18×40	865	18×35.5	820												

V. DC / μF	Contents	400V (2G)				450V (2W)			
		φD×L	mA	*φD×L	mA	φD×L	mA	*φD×L	mA
0.47	R47	8×11.5	18	6.3×11	15	10×12.5	22	8×11.5	18
1	010	8×11.5	27	6.3×11	21	10×12.5	32	8×11.5	27
2.2	2R2	10×12.5	48	8×11.5	39	10×12.5	48	8×11.5	39
3.3	3R3	10×16	65	8×11.5	47	10×16	65	10×12.5	55
4.7	4R7	10×20	86	10×12.5 8×11.5	70 50	10×20	86	10×16 8×11.5	75 50
10	100	10×20 12.5×20	125 145	12.5×16 16×16	120 150	12.5×25	160	12.5×20	145
22	220	10×25 16×25	205 265	16×20	220	16×25	265	12.5×20	200
27	270	16×25	310			16×31.5	340	12.5×25	235
33	330	16×25 16×31.5	325 360	18×20	270	16×31.5	360	16×25	325
39	390	16×31.5	375	16×25	340	16×35.5	400		
47	470	16×25 16×35.5	370 420	18×25	350	18×31.5	430		
56	560	18×25	460	16×25	400	18×40	480		
68	680	16×25	440						
82	820	18×31.5	500	16×31.5	475	22×40	600	18×31.5	500
100	101	20×40	600	18×35.5	540	20×45	690	18×35.5	540
120	121	20×40	720			20×50	780		
150	151	22×40	850			22×50	930	20×40	850
180	181	20×50	960						
220	221	22×50	1,130	20×45	950				

Remark: The Case size 12.5×16, 16×16, 16×20, 18×20 and 18×25 are used flat type rubber bung.
Case size in mark of "*" is downsize.