

SGV SERIES

UPGRADE

105°C Standard

- Load Life : 105°C 2000~5000 hours.
- AEC-Q200.
- High Temperature Reflow soldering is available. (JGV series)
(http://www.rubycon.co.jp/catalog/j_pdfs/aluminum/j_JGV.pdf)



RoHS
compliance



◆ SPECIFICATIONS

Items	Characteristics																																															
Category Temperature Range	-55~+105℃				-40~+105℃				-25~+105℃																																							
Rated Voltage Range	6.3~50Vdc				63, 100Vdc				160~450Vdc																																							
Capacitance Tolerance	±20% (20℃, 120Hz)																																															
Leakage Current(MAX)	6.3~100Vdc						160~450Vdc																																									
	I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage)						I=0.04CV+100μA (1 minute) I=0.02CV+25μA (5minutes)																																									
	I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																																															
Dissipation Factor(MAX) (tanδ)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160~250</td><td>400</td><td>450</td></tr><tr><td rowspan="2">tanδ</td><td>φ4,φ5,φ6.3×6.1</td><td>0.30</td><td>0.24</td><td>0.20</td><td>0.16</td><td>0.14</td><td>0.12</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>φ6.3×8,φ8~φ18</td><td>0.35</td><td>0.26</td><td>0.24</td><td>0.18</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.15</td><td>0.20</td><td></td></tr></table>												Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	160~250	400	450	tanδ	φ4,φ5,φ6.3×6.1	0.30	0.24	0.20	0.16	0.14	0.12	-	-	-	-	φ6.3×8,φ8~φ18	0.35	0.26	0.24	0.18	0.14	0.12	0.10	0.15	0.20		
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φ6.3×8,φ8~φ18		0.35	0.26	0.24	0.18	0.14	0.12	0.10	0.15	0.20																																						
(20℃, 120Hz)																																																
When rated capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.																																																
Endurance	After applying rated voltage with rated ripple current for specified time at 105℃, the capacitors shall meet the following requirements.																																															
	Capacitance Change		Within ±25% of the initial value.							Rated Voltage (Vdc)		Life Time (hrs)																																				
	Dissipation Factor		Not more than 200% of the specified value.							6.3~100		2000																																				
	Leakage Current		Not more than the specified value.							160~450		5000																																				
Low Temperature Stability Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td><td>160~250</td><td>400</td><td>450</td></tr><tr><td>Z(-25℃)/Z(20℃)</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>3</td><td>6</td><td></td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>8</td><td>8</td><td>4</td><td>4</td><td>3</td><td>3</td><td>5</td><td>5</td><td>-</td><td>-</td><td></td></tr></table>												Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	160~250	400	450	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	3	6		Z(-40℃)/Z(20℃)	8	8	4	4	3	3	5	5	-	-	
	Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	160~250	400	450																																				
	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	3	6																																					
Z(-40℃)/Z(20℃)	8	8	4	4	3	3	5	5	-	-																																						
(120Hz)																																																

◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency(Hz)		60(50)	120	500	1k	10k≤
Coefficient	0.47~1μF	0.50	1.00	1.20	1.30	1.50
	2.2~6.8μF	0.65	1.00	1.20	1.30	1.50
	10~68μF	0.80	1.00	1.20	1.30	1.50
	100~1000μF	0.80	1.00	1.10	1.15	1.20
	2200~6800μF	0.80	1.00	1.05	1.10	1.15

◆ PART NUMBER

□□□ SGV □□□□□ M □□□ D×L
 Rated Voltage Series Capacitance Capacitance Tolerance Option Case Size

◆ DIMENSIONS

(mm)

Technical drawings of a connector showing side and front views with dimensions.

Side View Dimensions:

- $\phi D \pm 0.5 \text{ MAX}$ (Overall diameter)
- $L + \alpha \text{ MAX}$ (Length)
- 0.3 MAX (Mounting hole offset)

Front View Dimensions:

- $A_1 \pm 0.2$ (Pitch)
- $B \pm 0.2$ (Pitch)
- W_1 (Width)
- K (Height)
- α (Angle)

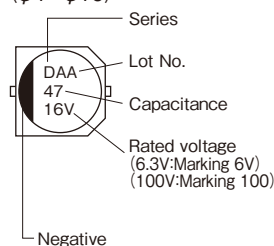
ϕD	L	A_1	B_1	C	W_1	P	K	α
4	6.1	4.3	4.3	1.8	0.5~0.8	1.0	0.5 MAX	0
5	6.1	5.3	5.3	2.2	0.5~0.8	1.3	0.5 MAX	0
6.3	6.1	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
6.3	8	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
8	6.5	8.3	8.3	3.4	0.5~0.8	2.2	0.5 MAX	0
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1	0.5 MAX	※1
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5	0.5 MAX	※1
12.5	13.5	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
12.5	16	13	13	4.9	0.8~1.1	4.5	0.7±0.4	0.5
16	16.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
16	21.5	17	17	6	1.0~1.6	6.8	0.7±0.4	0.5
18	16.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5
18	21.5	19	19	7	1.0~1.6	6.8	0.7±0.4	0.5

※1: α dimensions

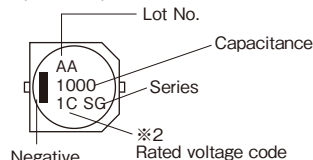
Rated Voltage	α
6.3~100	0
160~400	0.2

◆ MARKING

〈φ4~φ10〉



〈φ12.5~φ18〉



※2 Voltage code

Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	160	200	250	400	450
Rated Voltage code	0J	1A	1C	1E	1V	1H	1J	2A	2C	2D	2E	2G	2W

◆ **STANDARD SIZE**

Size $\phi D \times L$ (mm), Rated Ripple Current (mA r.m.s./105°C, 120Hz)

Vdc	Cap (μF)	Size (φDXL)	Ripple	Vdc	Cap (μF)	Size (φDXL)	Ripple	Vdc	Cap (μF)	Size (φDXL)	Ripple	
6.3	22	4×6.1	26	35	4.7	4×6.1	15	160	12	8×10.5	115	
	33	4×6.1	29		10	5×6.1	28		22	10×10.5	150	
	47	5×6.1	46		22	6.3×6.1	55		39	12.5×13.5	250	
	100	6.3×6.1	71		33	6.3×8	76		47	12.5×16	310	
	220	6.3×8	121			8×6.5	84		68	16×16.5	400	
	470	8×10.5	210		100	8×10.5	180		100	18×16.5	480	
	1000	10×10.5	495			10×10.5	305		120	16×21.5	560	
		12.5×13.5			450	150	18×21.5		690			
	2200	12.5×16	750			200	10	8×10.5	100			
	3300	16×21.5	930		330		12.5×16	460	15	10×10.5	130	
18×16.5		470		16×16.5	490		33	12.5×13.5	230			
4700	18×21.5	1200	1000	16×21.5	750		42	12.5×16	270			
6800	18×21.5	1350		18×16.5			56	16×16.5	350			
10	33	5×6.1	43	50	0.47		4×6.1	4	68	18×16.5	440	
	100	6.3×6.1	71		1		4×6.1	8	100	16×21.5	500	
	330	8×10.5	195		2.2		4×6.1	11	120	18×21.5	620	
	470	8×10.5	210		3.3	4×6.1	14	250	6.8	8×10.5	85	
		10×10.5	440		4.7	5×6.1	19		12	10×10.5	115	
	1000	12.5×16	500		10	6.3×6.1	35		22	12.5×13.5	190	
	2200	16×16.5	810		22	6.3×8	67		33	12.5×16	240	
	3300	16×21.5	1000			8×6.5	70		47	16×16.5	320	
		18×16.5			33	8×10.5	140		56	18×16.5	400	
	4700	18×21.5	1200		47	8×10.5	167		68	16×21.5	450	
16	10	4×6.1	28	10×10.5		180	100		18×21.5	560		
	22	5×6.1	39	100	8×10.5	230	400	2.7	8×10.5	55		
	47	6.3×6.1	70		10×10.5	315		4.7	10×10.5	75		
	100	6.3×8	111	220	12.5×16	380		10	12.5×13.5	135		
	220	8×10.5	185	330	16×16.5	470		15	12.5×16	165		
	330	8×10.5	290	470	16×21.5	550		22	16×16.5	220		
		10×10.5	440		18×16.5			27	18×16.5	280		
	470	8×10.5	320	1000	18×21.5	820		33	16×21.5	320		
		10×10.5	460	63	22	8×10.5		55	47	18×21.5	400	
	1000	16×16.5	630		33	8×10.5	115	450	6.8	12.5×13.5	110	
2200	16×21.5	930	47		8×10.5	120	10		12.5×16	150		
	18×16.5		100		12.5×16	225	15		16×16.5	195		
3300	18×21.5	1150	220		16×16.5	385	18		18×16.5	245		
25	33	6.3×6.1	65		330	16×21.5	490		22	16×21.5	275	
	47	6.3×8	79			33			18×16.5	590	33	18×21.5
		8×6.5	91		470	18×21.5	440		100	10	8×10.5	65
	100	8×10.5	180	22		10×10.5				90		
	220	8×10.5	320	33	10×10.5	135	220	16×21.5		700		
		10×10.5	355	47	12.5×13.5	160						
	330	10×10.5	450	100	16×16.5	285	3300	18×21.5		1050		
		12.5×13.5		490	18×16.5	1700						
	470	10×10.5	490									
	1000	16×21.5	700									
2200	18×21.5	1050										
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