

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°C	-40~+105°C	-25~+105°C																																				
Rated Voltage Range	6.3~50Vdc	63, 100Vdc	160~450Vdc																																				
Capacitance Tolerance	±20% (20°C, 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 (1minute) I=0.02CV+25μA (5minutes)																																				
	I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																																						
Dissipation Factor(MAX) (tanδ)	<table border="1"> <tr> <th>Rated Voltage (Vdc)</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> <th>160~250</th> <th>400</th> <th>450</th> </tr> <tr> <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> <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>0.12</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	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	0.12	0.10	0.15	0.20	-
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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°C, 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 border="1"> <tr> <th>Rated Voltage (Vdc)</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> <th>160~250</th> <th>400</th> <th>450</th> </tr> <tr> <td>Z(-25°C)/Z(20°C)</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°C)/Z(20°C)</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°C)/Z(20°C)	4	3	2	2	2	2	2	2	3	6	-	Z(-40°C)/Z(20°C)	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°C)/Z(20°C)	4	3	2	2	2	2	2	2	3	6	-																												
Z(-40°C)/Z(20°C)	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)

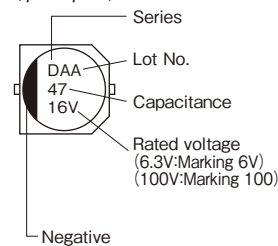
φD	L	A1	B1	C	W1	P	K	α
4	6.1	4.3	4.3	1.8	0.5~0.8	1.0	0.5 MAX	0
5	6.1	5.3	5.3	2.2	0.5~0.8	1.3	0.5 MAX	0
6.3	6.1	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
6.3	8	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
8	6.5	8.3	8.3	3.4	0.5~0.8	2.2	0.5 MAX	0
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1	0.5 MAX	※1
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5	0.5 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

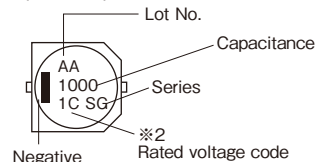
Rated Voltage	α
6.3~100	0
160~400	0.2

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 (μ F)	Size ($\phi D \times L$)	Ripple	Vdc	Cap (μ F)	Size ($\phi D \times L$)	Ripple	Vdc	Cap (μ F)	Size ($\phi D \times L$)	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			220	10×10.5	450		150	18×21.5	690	
	2200	12.5×16	750			330			12.5×16	460	200	10
	3300	16×21.5	930		470	16×16.5	490		15	10×10.5		130
18×16.5		1000		16×21.5	750	33	12.5×13.5	230				
4700	18×21.5		1200	18×16.5		56	16×16.5	350				
6800	18×21.5	1350				68	18×16.5	440				
10	33	5×6.1	43	50	0.47	4×6.1	4	250	6.8	8×10.5	85	
	100	6.3×6.1	71		1	4×6.1	8		12	10×10.5	115	
	330	8×10.5	195		2.2	4×6.1	11		22	12.5×13.5	190	
	470	8×10.5	210		3.3	4×6.1	14		33	12.5×16	240	
		10×10.5	440		4.7	5×6.1	19		47	16×16.5	320	
	1000	12.5×16	500		10	6.3×6.1	35		56	18×16.5	400	
	2200	16×16.5	810		22	6.3×8	67	68	16×21.5	450		
	3300	16×21.5	1000			8×6.5	70	100	18×21.5	560		
18×16.5		47			8×10.5	140	220	8×10.5	230			
4700	18×21.5		1200		10×10.5	180		330	12.5×16	470		
16	10	4×6.1	28		63	220	12.5×16	380	400	2.7	8×10.5	55
	22	5×6.1	39			330	16×16.5	470		4.7	10×10.5	75
	47	6.3×6.1	70				470	16×21.5		550	10	12.5×13.5
	100	6.3×8	111			18×16.5		220			15	12.5×16
	220	8×10.5	185			1000	18×21.5	820		22	16×16.5	220
	330	8×10.5	290				8×10.5	167		100	27	18×16.5
		10×10.5	440	10×10.5		180	33	16×21.5	320			
	470	8×10.5	320	22		8×10.5	55	47	18×21.5		400	
		10×10.5	460			33	8×10.5	115	450		6.8	12.5×13.5
	1000	16×16.5	630	47		8×10.5	120	10			12.5×16	150
2200	16×21.5	930	100	12.5×16	225	15	16×16.5	195				
	18×16.5		330	220	16×16.5	385	18	18×16.5		245		
3300	18×21.5	1150		470	16×21.5	490	27	16×21.5		275		
25	33	6.3×6.1	65		18×16.5		590	33		18×21.5	345	
	47	6.3×8	79	100	10	8×10.5	65	450	10	12.5×16	150	
		8×6.5	91		22	10×10.5	90		15	16×16.5	195	
	100	8×10.5	180		33	10×10.5	135		18	18×16.5	245	
	220	8×10.5	320		47	12.5×13.5	160		27	16×21.5	275	
		10×10.5	355			100	16×16.5		285	33	18×21.5	345
	330	10×10.5	450		220	16×21.5	440		450	6.8	12.5×13.5	110
		12.5×13.5				1000		18×16.5		700	10	12.5×16
470	10×10.5	490	33		18×21.5		345					
1000	16×21.5	700				15	16×16.5	195				
	18×16.5		2200	18×21.5	1050	18	18×16.5	245				
2200	18×21.5	1050					27	16×21.5		275		
3300	18×21.5	1700				33	18×21.5	345				