

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)

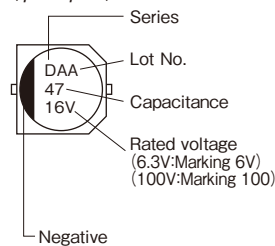
φD	L	A1	B1	C	W1	P	K	α
4	6.1	4.3	4.3	1.8	0.5~0.8	1.0	0.5 MAX	0
5	6.1	5.3	5.3	2.2	0.5~0.8	1.3	0.5 MAX	0
6.3	6.1	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
6.3	8	6.6	6.6	2.7	0.5~0.8	1.8	0.5 MAX	0
8	6.5	8.3	8.3	3.4	0.5~0.8	2.2	0.5 MAX	0
8	10.5	8.3	8.3	2.9	0.8~1.1	3.1	0.5 MAX	※1
10	10.5	10.3	10.3	3.2	0.8~1.1	4.5	0.5 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 (ϕ DXL)	Ripple	Vdc	Cap (μ F)	Size (ϕ DXL)	Ripple	Vdc	Cap (μ F)	Size (ϕ DXL)	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			12.5×13.5			330	12.5×16	460		
	3300	16×21.5	930		470	16×16.5	490		200	10	8×10.5	100	
18×16.5		1000		16×21.5	750	15	10×10.5	130					
4700	18×21.5		1200	18×16.5		33	12.5×13.5	230					
6800	18×21.5	1350	4700		18×21.5	1200	42	12.5×16	270				
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	18×16.5	440		
	3300	16×21.5	1000			8×6.5	70		100	16×21.5	500		
		18×16.5			4700	8×10.5	140		120	18×21.5	620		
	4700	18×21.5	1200			47	8×10.5		167	400	6.8	8×10.5	45
16	10	4×6.1	28	100	10×10.5	180	4.7	10×10.5	75				
	22	5×6.1	39		8×10.5	230	10	12.5×13.5	135				
	47	6.3×6.1	70	220	10×10.5	315	12	12.5×16	165				
	100	6.3×8	111		12.5×16	380	18	16×16.5	220				
	220	8×10.5	185	330	16×16.5	470	22	18×16.5	280				
	330	8×10.5	290		470	16×21.5	550	33	16×21.5		320		
		10×10.5	440	18×16.5		400							
	470	8×10.5	320	1000	18×21.5	820	47	18×21.5	400				
		10×10.5	460		63	22	8×10.5	55	450		6.8	12.5×13.5	110
	1000	16×16.5	630	33		8×10.5	115	8.2		12.5×16	150		
2200	16×21.5	930	47	8×10.5		120	12	16×16.5		195			
	18×16.5		3300	100		12.5×16	225	18		18×16.5	245		
3300	18×21.5	1150		220		16×16.5	385	22		16×21.5	275		
25	33	6.3×6.1	65	330		16×21.5	490	27		18×21.5	345		
	47	6.3×8	79			18×16.5				470	18×21.5	590	
		8×6.5	91	100		10	8×10.5			65	100	10	8×10.5
	100	8×10.5	180			22	10×10.5			90		22	10×10.5
	220	8×10.5	320	33		10×10.5	135			47		12.5×13.5	160
		10×10.5	355		100	16×16.5	285		220			16×21.5	440
	330	10×10.5	450	470	16×21.5	440	18×16.5			440			
		12.5×13.5			1000		18×16.5		700				
	470	10×10.5	490	2200		18×21.5	1050						
	1000	16×21.5	700	3300	18×21.5	1700							
18×16.5													