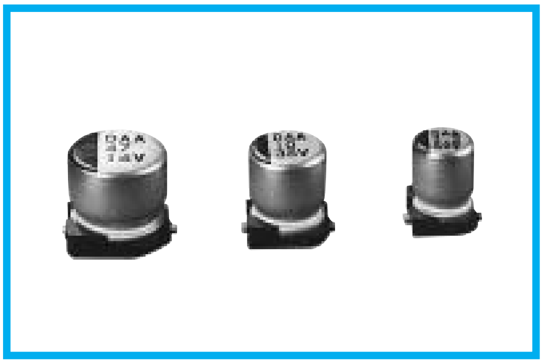
SGV SERIES

105℃ Long Life, Lead Free Reflow Soldering.



◆FEATURES

- Load Life : 105℃ 2000 hours.
- Lead free reflow soldering is available.
- Available for high density mounting.
- RoHS compliance.

◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	−55～+105℃	−40～+105℃
Rated Voltage Range	6.3～50V.DC	63 , 100V.DC
Capacitance Tolerance	±20% (20℃, 120Hz)	
Leakage Current(MAX)	I=0.01CV or 3 μA whichever is greater. (After 2 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)	
Dissipation Factor(MAX) (tan δ)	see below	
Endurance	After applying rated voltage with rated ripple current for 2000 hrs at 105℃, the capacitors shall meet the following requirements.	
Low Temperature Stability Impedance Ratio(MAX)	see below	

Dissipation Factor(MAX) (tan δ) (20℃, 120Hz)

Rated Voltage (V)		6.3	10	16	25	35	50	63	100
tan δ	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

When rated capacitance is over 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.

Endurance

Capacitance Change	Within ±25% of the initial value.
Dissipation Factor	Not more than 200% of the specified value.
Leakage Current	Not more than the specified value.

Low Temperature Stability Impedance Ratio(MAX) (120Hz)

Rated Voltage (V)	6.3	10	16	25	35	50	63	100
Z(−25℃)/Z(20℃)	4	3	2	2	2	2	2	2
Z(−40℃)/Z(20℃)	8	8	4	4	3	3	5	5

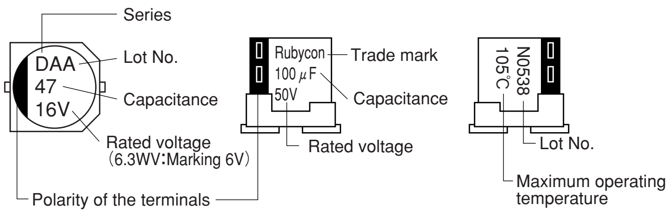
◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60(50)	120	500	1k	10k≦
Coefficient	0.1～1 μF	0.50	1.00	1.20	1.30	1.50
	2.2～4.7 μF	0.65	1.00	1.20	1.30	1.50
	10～47 μF	0.80	1.00	1.20	1.30	1.50
	100～1000 μF	0.80	1.00	1.10	1.15	1.20
	2200～6800 μF	0.80	1.00	1.05	1.10	1.15

◆MARKING

〈ϕ4～ϕ6.3, ϕ8×6.5〉 〈ϕ8×10.5, ϕ10～ϕ18〉

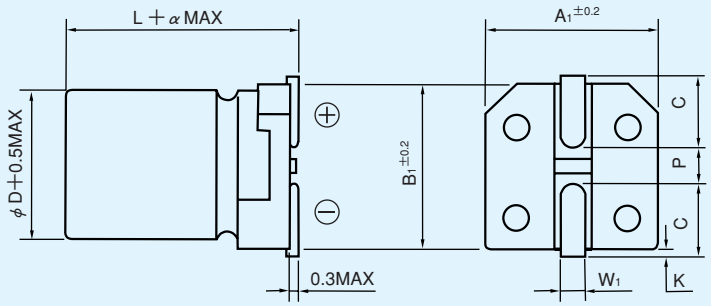


◆PART NUMBER

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

◆DIMENSIONS

(mm)



φ8×10.5～φ18 have sleeve.

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	0
10	10.5	10.3	10.3	3.2	0.8～1.1	4.5	0.5 MAX	0
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

◆SIZE, RATED RIPPLE CURRENT

Size φD×L(mm), Ripple Current (mA r.m.s./105℃, 120Hz)

WV(V.DC) / Cap(μF)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											4×6.1	1.0				
0.22											4×6.1	2.6				
0.33											4×6.1	3.2				
0.47											4×6.1	4.0				
1											4×6.1	8.0				
2.2											4×6.1	11				
3.3											4×6.1	14				
4.7									4×6.1	15	5×6.1	19			8×10.5	55
10					4×6.1	28			5×6.1	28	6.3×6.1	35			8×10.5	65
22	4×6.1	26			5×6.1	39			6.3×6.1	55	6.3×8	67	8×10.5	55	10×10.5	90
											8×6.5	70				
33	4×6.1	29	5×6.1	43			6.3×6.1	65	6.3×8	76	8×10.5	140	8×10.5	115	10×10.5	135
									8×6.5	84						
47	5×6.1	46			6.3×6.1	70	6.3×8	79			8×10.5	167	8×10.5	120	12.5×13.5	160
							8×6.5	91			10×10.5	180				
100	6.3×6.1	71	6.3×6.1	71	6.3×8	111	8×10.5	180	8×10.5	180	8×10.5	230	12.5×16	225	16×16.5	285
									10×10.5	305	10×10.5	315				
220	6.3×8	121			8×10.5	185	8×10.5	320	10×10.5	450	12.5×16	380	16×16.5	385	16×21.5	440
							10×10.5	355	12.5×13.5						18×16.5	
330			8×10.5	195	8×10.5	290	10×10.5	450	12.5×16	460	16×16.5	470	16×21.5	490		
					10×10.5	440	12.5×13.5						18×16.5			
470	8×10.5	210	8×10.5	210	8×10.5	320	10×10.5	490	16×16.5	490	16×21.5	550	18×21.5	590		
			10×10.5	440	10×10.5	460					18×16.5					
1000	10×10.5	495	12.5×16	500	16×16.5	630	16×21.5	700	16×21.5	750	18×21.5	820				
	12.5×13.5						18×16.5		18×16.5							
2200	12.5×16	750	16×16.5	810	16×21.5	930	18×21.5	1050								
					18×16.5											
3300	16×21.5	930	16×21.5	1000	18×21.5	1150	18×21.5	1700								
	18×16.5		18×16.5													
4700	18×21.5	1200	18×21.5	1200												
6800	18×21.5	1350														