

Features

- Snap-in terminal type
- 105°C, 2,000 hours assured
- RoHS Compliance



Sleeve & Marking Color: Brown & White

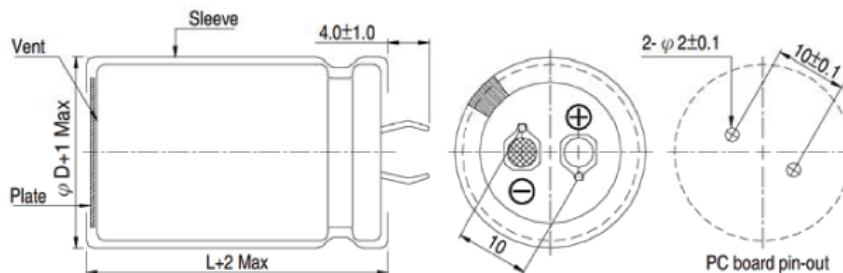
SPECIFICATIONS

Items	Performance																																					
Category Temperature Range	-40℃ ~ +105℃																																					
Capacitance Tolerance	±20% (at 120Hz, 20℃)																																					
Leakage Current (at 20℃)	$I=3\sqrt{CV}$ or 1.5 mA whichever is smaller (after 5 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V																																					
Dissipation Factor (Tan δ at 120Hz, 20℃)	Rated Voltage	16	25	35	50	63	100	160	200	250	350	400	420	450	500																							
	Tan δ (max)	0.50	0.45	0.40	0.35	0.30	0.20	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15																							
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.																																					
	Rated Voltage	16	25	35	50	63	100	160	200	250	350	400	420	450	500																							
	Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	3	2	2	4	4	4	4	8	8	8	8																							
		Z(-40℃)/Z(+20℃)	15	10	8	6	5	4	8	10	10	16	18	18	20																							
Endurance	<table><tr><td>Test Time</td><td>2,000 Hrs</td></tr><tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td>Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td>Within specified value</td></tr></table> * 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℃.														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																
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																																					
Shelf Life Test	<table><tr><td>Test Time</td><td>1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td>Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td>Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td>Within specified value</td></tr></table> * 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 (Refer to JIS C 5101-4 4.1).														Test Time	1,000 Hrs	Capacitance Change	Within ±20% of initial value	Dissipation Factor	Less than 150% of specified value	Leakage Current	Within specified value																
Test Time	1,000 Hrs																																					
Capacitance Change	Within ±20% of initial value																																					
Dissipation Factor	Less than 150% of specified value																																					
Leakage Current	Within specified value																																					
Ripple Current & Frequency Multipliers	<table><tr><td>W, V.(V) \ Freq.(Hz)</td><td>50 / 60</td><td>100 / 120</td><td>500</td><td>1k</td><td>10k up</td></tr><tr><td>Under 100</td><td>0.92</td><td>1.00</td><td>1.13</td><td>1.19</td><td>1.20</td></tr><tr><td>160 ~ 250</td><td>0.81</td><td>1.00</td><td>1.32</td><td>1.45</td><td>1.50</td></tr><tr><td>350 to up</td><td>0.77</td><td>1.00</td><td>1.30</td><td>1.41</td><td>1.43</td></tr></table>														W, V.(V) \ Freq.(Hz)	50 / 60	100 / 120	500	1k	10k up	Under 100	0.92	1.00	1.13	1.19	1.20	160 ~ 250	0.81	1.00	1.32	1.45	1.50	350 to up	0.77	1.00	1.30	1.41	1.43
W, V.(V) \ Freq.(Hz)	50 / 60	100 / 120	500	1k	10k up																																	
Under 100	0.92	1.00	1.13	1.19	1.20																																	
160 ~ 250	0.81	1.00	1.32	1.45	1.50																																	
350 to up	0.77	1.00	1.30	1.41	1.43																																	

• 3000 Hrs specifications are available upon request.

DIAGRAM OF DIMENSIONS

Unit: mm



DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)
Ripple Current: A/rms at 120 Hz, 105°C

V.DC μF ϕD	160V (2C)								200V (2D)							
	22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
180									22x25	0.80						
220									22x25	0.89						
270	22x25	0.86							22x25	0.87	25x25	1.00				
330	22x25	1.10							22x30	1.13	25x25	1.13				
	22x30	1.20							22x35	1.20	25x30	1.17				
390	22x30	1.22	25x25	1.15					22x35	1.25	25x30	1.21	30x25	1.20		
	22x35	1.30							22x40	1.31						
470	22x35	1.35	25x25	1.33					22x40	1.32	25x30	1.32	30x25	1.50		
	22x40	1.40	25x30	1.41					22x45	1.40	25x35	1.41				
560	22x40	1.50	25x30	1.45	30x25	1.40			22x45	1.53	25x35	1.50	30x30	1.52	35x25	1.49
			25x35	1.51					22x50	1.56	25x40	1.53				
680	22x45	1.65	25x35	1.65	30x25	1.65			22x50	1.74	25x40	1.70	30x35	1.73	35x25	1.72
	22x50	1.71	25x40	1.70	30x30	1.72					25x45	1.74			35x30	1.73
820	22x50	1.93	25x40	1.85	30x30	1.76	35x25	1.91			25x50	2.04	30x40	1.93	35x30	1.76
			25x45	2.01	30x35	2.00	35x30	2.00					30x45	2.20	35x35	1.93
1,000				2.20	30x35	2.02	35x30	2.44					30x50	2.30	35x40	2.20
					30x40	2.22	35x35	2.20								2.30
1,200			25x50	2.45	30x40	2.35	35x35	2.50					30x50	2.60	35x40	2.65
					30x45	2.44										
1,500						2.82	35x40	2.70							35x45	2.58
															35x50	2.80
1,800					30x50	3.31	35x45	2.85							35x50	3.47
							35x50	3.10								

V.DC μF ϕD	250V (2E)								350V (2V)							
	22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
68									22x25	0.51						
82									22x25	0.56						
100									22x30	0.66	25x25	0.66				
120									22x30	0.69	25x25	0.69				
									22x35	0.75						
150									22x35	0.80	25x30	0.83	30x25	0.83		
									22x40	0.82						
180	22x25	0.78	25x25	0.85					22x40	0.84	25x35	0.92	30x25	0.85		
	22x30	0.82							22x45	0.92			30x30	0.92		
220	22x30	0.85	25x25	0.90	30x25	1.00			22x50	1.05	25x40	1.04	30x30	1.02	35x25	1.04
	22x35	0.90	25x30	1.00												
270	22x30	0.91	25x25	0.91	30x25	1.01					25x45	1.17	30x35	1.17	35x25	1.12
	22x35	1.00									25x50	1.18			35x30	1.15
	22x40	1.14														
330	22x40	1.10	25x30	1.13	30x25	1.05					25x50	1.20	30x40	1.25	35x30	1.21
	22x45	1.26	25x35	1.20	30x30	1.13							30x45	1.31	35x35	1.29
390	22x45	1.25	25x35	1.27	30x30	1.24							30x45	1.42	35x35	1.40
	22x50	1.49	25x40	1.38									30x50	1.49	35x40	1.48
470	22x50	1.57	25x40	1.49	30x30	1.37	35x25	1.17					30x50	1.64	35x40	1.63
			25x45	1.57	30x35	1.57	35x30	1.30							35x45	1.71
560			25x45	1.79	30x35	1.58	35x25	1.61							35x45	1.87
					30x40	1.79	35x30	1.79							35x50	1.95
680			25x50	1.98	30x40	2.00	35x30	1.95								
							35x35	2.07								
820					30x45	2.30	35x35	2.27								
					30x50	2.41	35x40	2.40								
1,000					35x40	2.65										
					35x45	2.78										
1,200							35x45	3.05								



Aluminum Electrolytic Capacitors

LSG

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)

Ripple Current: A/rms at 120 Hz, 105°C

V.DC μF ϕD	16V (1C)								25V (1E)							
	22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
4,700									22x25	1.39						
5,600									22x25	1.52						
6,800	22x25	1.57							22x25	1.68	25x25	1.87				
									22x30	1.86						
8,200	22x25	1.61							22x30	1.93	25x25	1.92	30x25	2.15		
									22x35	2.11	25x30	2.12				
10,000	22x25	1.78	25x30	2.12					22x30	2.05	25x25	2.05				
	22x30	1.97							22x40	2.39	25x35	2.42				
12,000	22x25	1.92	25x25	1.87	30x25	2.45			22x40	2.48	25x30	2.36	30x25	2.45	35x25	2.74
	22x35	2.22	25x30	2.24					22x45	2.69	25x40	2.74	30x30	2.70		
15,000	22x30	2.20	25x25	2.19							25x35	2.75	30x25	2.66	35x25	2.97
	22x40	2.55	25x35	2.58					22x45	2.86	25x45	3.15	30x35	3.13	35x30	3.27
18,000	22x35	2.49	25x30	2.52	30x25	2.61	35x25	2.92	22x50	3.19	25x40	3.11	30x30	3.07		
	22x45	2.87	25x40	2.92	30x30	2.88					25x50	3.54	30x40	3.54		
22,000	22x40	2.90	25x30	2.77	30x25	2.79							30x35	3.53	35x30	3.34
			25x45	3.32	30x35	3.29					25x50	3.71	30x45	4.04	35x35	3.64

V.DC μF ϕD	35V (1V)								50V (1H)							
	22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
1,800									22x25	1.33						
2,200									22x25	1.48						
2,700									22x25	1.53	25x25	1.57				
									22x30	1.69						
3,300									22x30	1.76	25x25	1.70				
									22x35	1.93	25x35	1.85				
3,900									22x35	1.97	25x30	1.99	30x25	1.95		
									22x40	2.16	25x35	2.18				
4,700	22x25	1.63	25x25	1.70					22x40	2.22	25x30	2.18	30x25	2.04	35x25	2.48
									22x45	2.43			30x30	2.25		
5,600	22x30	1.77	25x25	1.77	30x25	1.99			22x45	2.56	25x35	2.47	30x25	2.33		
	22x35	1.95	25x30	1.96					22x50	2.75	25x40	2.70	30x35	2.76		
6,800	22x35	2.02	25x30	2.04							25x40	2.92	30x30	2.84	35x25	2.91
	22x40	2.20	25x35	2.23					22x50	3.00	25x50	3.30	30x40	3.30		
8,200	22x40	2.25	25x35	2.60	30x25	2.49	35x25	2.69			25x45	3.13	30x35	3.13	35x30	3.23
	22x50	2.55	25x40	2.65	30x30	2.65							30x45	3.60	35x35	3.55
10,000			25x40	2.83	30x30	2.75							30x40	3.55	35x30	3.47
	22x50	2.70	25x45	2.87	30x35	2.90							30x50	4.04	35x40	4.03
12,000			25x45	3.00	30x35	2.96	35x25	2.75					30x45	4.04	35x35	3.98
			25x50	3.24	30x40	3.23	35x30	2.99							35x45	4.55
15,000					30x35	3.24	35x25	3.12								
					30x45	3.72	35x35	3.67								
18,000					30x45	4.07	35x35	4.02								
							35x40	4.37								
22,000					30x50	4.71	35x40	4.69								
							35x50	4.92								

V.DC μF ϕD	63V (1J)								100V (2A)							
	22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
1,200	22x25	1.19							22x35	1.55	25x30	1.56	30x25	1.68		
									22x40	1.69	25x35	1.71				
1,500	22x25	1.30							22x40	1.78	25x35	1.80	30x25	1.76	35x25	1.98
									22x45	1.94	25x40	1.98	30x30	1.95		
1,800	22x25	1.36	25x25	1.52					22x45	1.99	25x40	2.03	30x30	2.29	35x25	2.34
	22x30	1.51									25x45	2.25	30x35	2.50		
2,200	22x30	1.55	25x25	1.55							25x45	2.30	30x35	2.43	35x25	2.27
	22x35	1.73	25x30	1.74							25x50	2.53	30x40	2.70	35x30	2.50
2,700	22x35	1.80	25x30	1.81	30x25	1.76							30x40	2.61	35x30	2.62
	22x40	1.97	25x35	1.99							25x50	2.59	30x45	2.88	35x35	2.86
3,300	22x40	1.99	25x35	2.06	30x25	2.00	35x25	2.06					30x45	3.03	35x35	2.99
	22x50	2.29	25x40	2.27	30x30	2.24							30x50	3.28	35x40	3.27
3,900	22x45	2.28	25x35	2.20	30x25	2.18	35x25	2.40							35x40	3.35
			25x45	2.54	30x35	2.55							30x50	3.36	35x45	3.38
4,700	22x50	2.58	25x40	2.51	30x30	2.48	35x25	2.54							35x45	3.67
			25x50	2.86	30x40	2.86	35x30	2.79							35x50	3.70
5,600			25x45	2.79	30x35	2.78	35x30	2.92								
					30x45	3.22	35x35	3.19								
6,800					30x40	3.18	35x30	3.16								
					30x50	3.65	35x40	3.64								
8,200					30x45	3.46	35x35	3.41								
							35x45	3.90								
10,000							35x40	3.90								
							35x50	4.40								
12,000							35x45	4.50								

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)
Ripple Current: A/rms at 120 Hz, 105°C

V. DC μF	ϕD	400V (2G)								450V (2W)							
		22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
56										22x25	0.40						
68		22x25	0.50							22x25	0.42	25x25	0.45				
		22x30	0.51							22x30	0.45						
82		22x25	0.51	25x25	0.54					22x30	0.50	25x25	0.50				
		22x30	0.55							22x35	0.56						
100		22x30	0.58	25x25	0.58					22x35	0.59	25x25	0.51	30x25	0.64		
		22x35	0.61	25x30	0.64					22x40	0.64	25x30	0.57				
120		22x35	0.67	25x25	0.61	30x25	0.68			22x35	0.62	25x30	0.65	30x25	0.67		
		22x40	0.72	25x30	0.69					22x45	0.72	25x35	0.71				
				25x35	0.72												
150		22x40	0.77	25x30	0.70	30x25	0.76			22x45	0.80	25x35	0.77	30x25	0.75	35x25	0.83
		22x50	0.82	25x35	0.78	30x30	0.81			22x50	0.84	25x40	0.82	30x30	0.81		
				25x40	0.84												
180		22x45	0.88	25x35	0.85	30x25	0.83	35x25	0.91	22x50	0.92	25x40	0.90	30x30	0.88		
		22x50	0.95	25x40	0.90	30x30	0.89	35x30	0.98			25x45	0.94	30x35	0.94		
				25x45	0.95	30x35	0.95										
220				25x40	1.00	30x30	0.99	35x25	1.01			25x45	1.04	30x35	1.04	35x25	1.00
				25x45	1.05	30x35	1.05	35x30	1.08			25x50	1.09	30x40	1.10	35x30	1.07
				25x50	1.10	30x40	1.11										
270				25x45	1.17	30x35	1.16	35x30	1.20			25x50	1.21	30x40	1.22	35x30	1.19
				25x50	1.22	30x40	1.23	35x35	1.28					30x45	1.28	35x35	1.27
						30x45	1.29										
330						30x40	1.36	35x30	1.33					30x45	1.42	35x35	1.40
						30x45	1.43	35x40	1.49					30x50	1.49	35x45	1.55
390						30x45	1.56	35x30	1.44					30x50	1.62	35x40	1.61
						30x50	1.63	35x45	1.70							35x45	1.76
470								35x40	1.78							35x50	1.85
								35x50	1.95							35x50	1.94
560								35x45	2.04							35x50	2.12

V. DC μF	ϕD	420V (2P)								500V (2H)							
		22 ϕ		25 ϕ		30 ϕ		35 ϕ		22 ϕ		25 ϕ		30 ϕ		35 ϕ	
82		22x25	0.45							22x30	0.75	25x30	0.81				
100		22x30	0.53							22x40	0.94	25x40	1.00				
120		22x35	0.62	25x25	0.58					22x50	1.14	25x50	1.22				
150		22x40	0.74	25x35	0.75					22x50	1.27	25x55	1.42				
180		22x45	0.85	25x30	0.77	30x30	0.86							30x35	1.42		
220		22x50	1.00	25x40	0.96	30x30	0.95							30x35	1.57	35x40	1.74
270		22x60	1.20	25x50	1.10	30x30	1.05	35x35	1.23							35x45	2.02
330				25x55	1.36			35x35	1.35							35x50	2.45
470																35x60	2.62
680								35x50	2.12							35x70	3.38
820								35x70	2.70							40x70	4.00
1,000								35x70	3.08							40x80	4.68

Ripple current: A/rms

Case size: $\phi D \times L$ (mm)

Part numbering system

LSG series	100 μF	$\pm 20\%$	400V	4.0 ± 0.5 mm	22 ϕ x30L	Pb-free Terminal + PVC Sleeve
LSG	101	M	2G	--	A	2230
Series name	Capacitance	Capacitance tolerance	Rated voltage	Terminal type	Terminal length	Case size
Example:	Example:	Example:	Example:	Example:	Example:	Example:
Cap. Symbol	WV Symbol	M = $\pm 20\%$ K = $\pm 10\%$	400 2G 450 2W	Type Symbol 2 pins -- 5 pins L5	6.3 ± 1.0 mm	$\phi D \times L$ Code 22x30 2230 25x25 2525 30x40 3040
56 560 220 221 470 471						

Note: For more details, please refer to "Product Code Guide- Snap-in Type" on page 15.