

FEATURES

- Has a snap-in terminal which can solder to a PCB directly and need not fixture to save processing time.
- Suitable for electronic equipment with medium-high voltage circuits.
- Printed circuit board terminal snap-in type and lug terminal type available.



SPECIFICATIONS

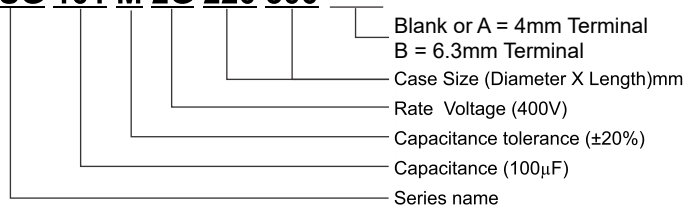
Items	Performance																
Category Temperature Range	16 ~ 100V -40℃ ~ +105℃								160 ~ 500V -25℃ ~ +105℃								
Capacitance Tolerance	±20% (at 120 Hz, 20℃)																
Leakage Current (at 20℃)	I = 3√CV or 1.5 mA whichever is smaller (after 5 minutes) Where, C = rated capacitance in μF, V = rated DC Rated Voltage in V																
Tanδ (at 120 Hz, 20℃)	Rated Voltage	16	25	35	50	63	80	100	160	200	250	350	400	420	450	500	
	Tanδ (max)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	
Low Temperature Characteristics (at 120 Hz)	Impedance ratio shall not exceed the values given in the table below.																
	Rated Voltage		16	25	35	50	63	80	100	160	200	250	350	400	420	450	500
	Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	3	2	2	2	4	4	4	4	8	8	8	8	8
		Z(-40℃)/Z(+20℃)	15	10	8	6	5	5	4	-	-	-	-	-	-	-	-
Endurance	Test Time		2,000 Hrs														
	Capacitance Change		Within ±20% of initial value														
	Tanδ		Less than 200% of specified value														
	Leakage Current		Within specified value														
	* 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℃.																
Shelf Life Test	Test Time		1,000 Hrs														
	Capacitance Change		Within ±20% of initial value														
	Tanδ		Less than 150% of specified value														
	Leakage Current		Within specified value														
	* 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).																
Ripple Current and Frequency Multipliers	Case size	Freq.(Hz) Rated Volt. (V)		50 / 60	100 / 120	500	1k	10k up									
	Length ≤ 55L	≤ 100		0.92	1.00	1.13	1.19	1.20									
		160 ~ 250		0.81	1.00	1.32	1.45	1.50									
		350 ≤		0.77	1.00	1.30	1.41	1.43									
	Length ≥ 60L	160 ~ 450		0.88	1.00	1.20	1.25	1.40									
Failure percentage Failure rate	When the failure percentage / failure rate is required, please contact with us for further discussion.																

Diagram of Dimensions

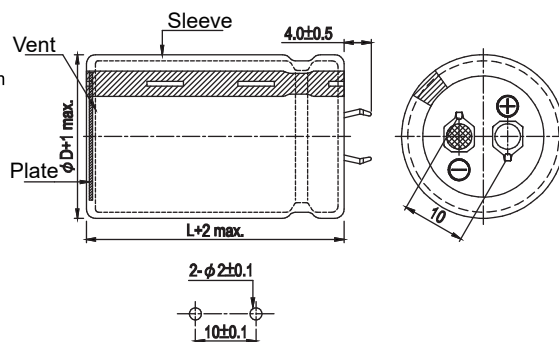
Unit: mm

PART NUMBER EXAMPLE

LSG 101 M 2G 220 300



SNAP-IN TERMINAL TYPE



PC board pin-out

DIMENSION AND PERMISSIBLE RIPPLE CURRENT

(DIMENSION: Φ DxL (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μ F	V.D.C.	16V (1C)									
	CODE	20		22		25		30		35	
3300	332										
3900	392										
4700	472										
5600	562										
6800	682										
8200	822										
10000	103	20 X 25	1.61	22 X 25	1.78						
12000	123			22 X 25	1.92						
15000	153			22 X 30	2.00	25 X 25	2.25				
18000	183			22 X 35	2.49	25 X 30	2.52	30 X 25	2.61		
22000	223			22 X 40	2.90	25 X 30	2.77	30 X 25	2.88		
27000	273					25 X 35	3.02	30 X 30	3.15		
33000	333							30 X 30	3.48	35 X 25	3.57
39000	393							30 X 35	4.03	35 X 30	4.16
47000	473									35 X 35	4.85

μ F	V.D.C.	25V (1E)									
	CODE	22		25		30		35			
3300	332										
3900	392										
4700	472										
5600	562										
6800	682										
8200	822	22 X 25	1.73								
10000	103	22 X 30	2.05	25 X 25	2.05						
12000	123	22 X 35	2.23	25 X 25	2.09	30 X 25	2.45	35 X 25	2.74		
15000	153	22 X 40	3.00	25 X 35	2.80	30 X 25	2.72	35 X 25	3.00		
18000	183	22 X 45	2.90	25 X 35	2.83	30 X 30	3.07	35 X 25	3.02		
22000	223	22 X 50	3.30	25 X 40	3.22	30 X 30	3.18	35 X 25	3.07		
27000	273					30 X 35	3.35	35 X 30	3.46		
33000	333										
39000	393										
47000	473										

■ DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: $\Phi D \times L$ (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μF	V.D.C. CODE	200V									
		22		25		30		35		40	
270	271	22 X 25	0.95								
330	331	22 X 30	1.13	25 X 25	1.13						
390	391	22 X 35	1.25	25 X 30	1.21	30 X 25	1.20				
470	471	22 X 35	1.23	25 X 30	1.32	30 X 25	1.50				
560	561	22 X 40	1.43	25 X 35	1.50	30 X 30	1.52	35 X 25	1.49		
680	681	22 X 50	1.74	25 X 40	1.70	30 X 30	1.58	35 X 25	1.72		
820	821			25 X 45	1.85	30 X 35	1.85	35 X 30	1.90		
1000	102			25 X 55	2.13	30 X 40	2.06	35 X 30	2.01		
1200	122					30 X 45	2.37	35 X 35	2.34		
1500	152					30 X 50	2.77	35 X 40	2.76		
1800	182							35 X 45	3.17		
2200	222							35 X 55	3.82		
2700	272									40 X 50	4.39
3300	332										
3900	392										
4700	472										
5600	562										

μF	V.D.C. CODE	250V									
		22		25		30		35		40	
100	101										
120	121										
150	151										
180	181	22 X 35	0.78								
220	221	22 X 30	0.85	25 X 25	0.90						
270	271	22 X 30	0.91	25 X 25	0.91	30 X 25	1.01				
330	331	22 X 35	1.03	25 X 30	1.13	30 X 25	1.05				
390	391	22 X 40	1.13	25 X 35	1.27	30 X 25	1.11				
470	471	22 X 45	1.31	25 X 40	1.49	30 X 30	1.37	35 X 25	1.17		
560	561			25 X 35	1.50	30 X 35	1.58	35 X 25	1.61		
680	681			25 X 50	1.77	30 X 40	2.00	35 X 30	1.95		
820	821					30 X 45	2.30	35 X 30	2.27		
1000	102					30 X 50	2.37	35 X 40	2.65		
1200	122					30 X 55	2.71	35 X 45	3.05		
1500	152							35 X 50	3.18		
1800	182							35 X 60	3.76		
2200	222							35 X 70	4.45		

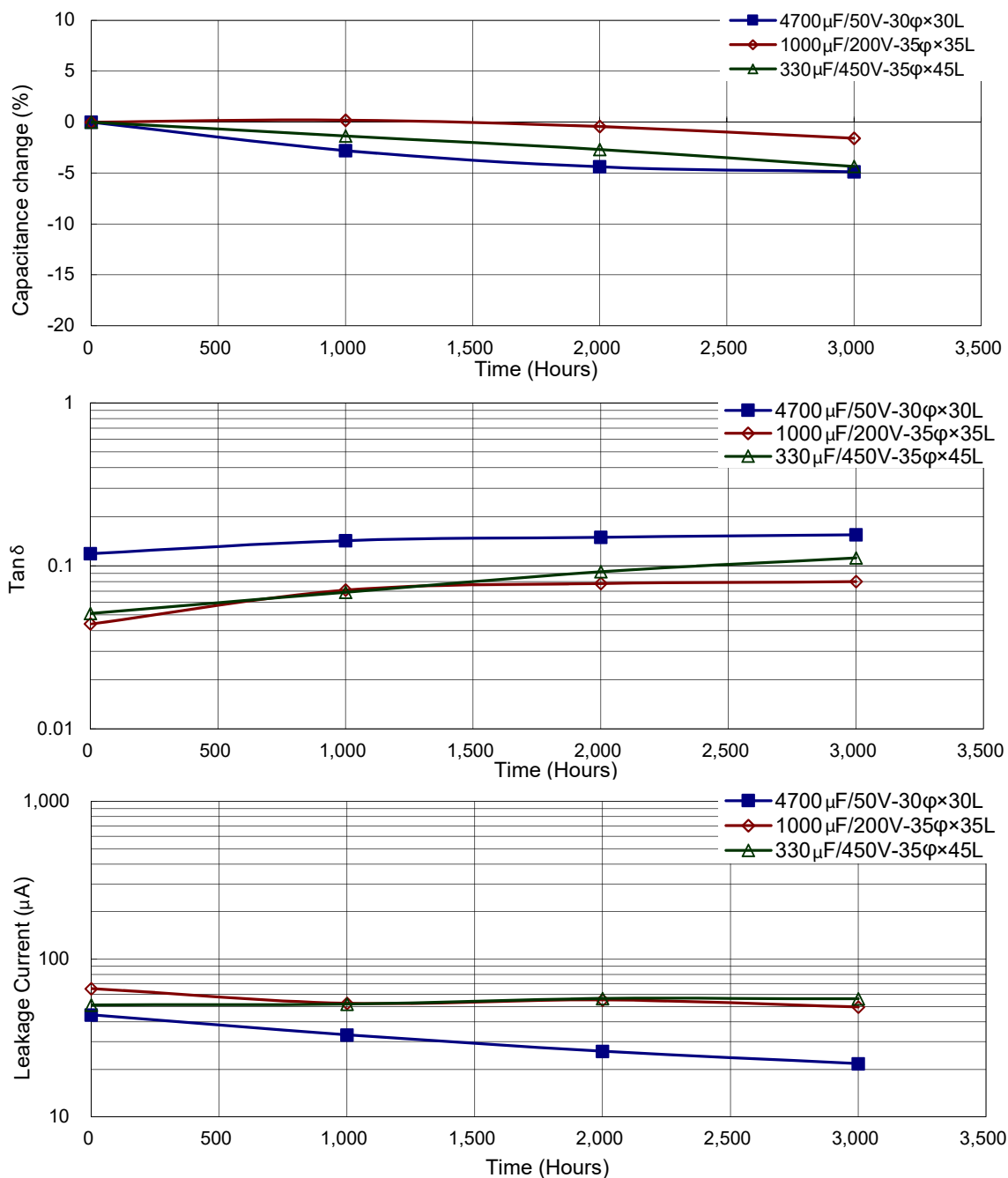
DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: Φ DxL (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μ F	V.D.C.	100V							
	CODE	22		25		30		35	
270	271								
330	331								
390	391								
470	471								
560	561								
680	681								
820	821	22 X 30	1.14						
1000	102	22 X 30	1.26						
1200	122	22 X 35	1.55	25 X 30	1.56	30 X 25	1.68		
1500	152	22 X 40	1.78	25 X 35	1.80	30 X 25	1.76	35 X 25	1.98
1800	182	22 X 45	1.99	25 X 35	1.95	30 X 30	2.29	35 X 25	2.34
2200	222	22 X 50	2.21	25 X 40	2.15	30 X 30	2.12	35 X 25	2.27
2700	272			25 X 50	2.59	30 X 35	2.37	35 X 30	2.62
3300	332					30 X 40	2.77	35 X 35	2.99
3900	392					30 X 45	3.02	35 X 40	3.35
4700	472							35 X 40	3.30
5600	562							35 X 45	3.51

μ F	V.D.C.	160V							
	CODE	22		25		30		35	
270	271	22 X 25	0.86						
330	331	22 X 25	1.10						
390	391	22 X 30	1.22	25 X 25	1.15				
470	471	22 X 35	1.36	25 X 25	1.33				
560	561	22 X 40	1.50	25 X 30	1.45	30 X 25	1.40		
680	681	22 X 45	1.65	25 X 35	1.65	30 X 25	1.65		
820	821	22 X 50	1.93	25 X 40	1.85	30 X 30	1.76	35 X 25	1.91
1000	102			25 X 45	2.20	30 X 35	2.02	35 X 30	2.44
1200	122			25 X 50	2.45	30 X 40	2.35	35 X 35	2.50
1500	152					30 X 45	2.82	35 X 40	2.70
1800	182					30 X 50	3.31	35 X 45	2.85
2200	222								
2700	272								
3300	332								
3900	392								
4700	472								
5600	562								

TYPICAL ENDURANCE CURVES



■ DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: Φ DxL (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μ F	V.D.C.	35V (1V)							
	CODE	22		25		30		35	
3300	332	22 X 25	1.30						
3900	392	22 X 30	1.50						
4700	472	22 X 25	1.63	25 X 25	1.70				
5600	562	22 X 25	1.63	25 X 25	1.77	30 X 25	1.99		
6800	682	22 X 30	1.86	25 X 30	2.04	30 X 30	2.24		
8200	822	22 X 35	2.10	25 X 35	2.60	30 X 25	2.49	35 X 25	2.69
10000	103	22 X 40	2.42	25 X 40	2.83	30 X 30	2.75		
12000	123	22 X 45	2.79	25 X 45	3.00	30 X 35	2.96	35 X 25	2.75
15000	153			25 X 45	3.24	30 X 45	3.24	35 X 25	3.12
18000	183			25 X 50	3.71	30 X 45	4.07	35 X 35	4.02
								35 X 40	4.37
22000	223					30 X 45	4.34	35 X 40	4.69
27000	273								
33000	333								
39000	393								
47000	473								

μ F	V.D.C.	50V (1H)							
	CODE	22		25		30		35	
1000	102								
1200	122								
1500	152								
1800	182	22 X 25	1.33						
2200	222	22 X 25	1.48						
2700	272	22 X 25	1.53	25 X 25	1.57				
3300	332	22 X 30	1.76	25 X 25	1.70				
3900	392	22 X 35	1.97	25 X 25	1.82	30 X 25	1.95		
4700	472	22 X 35	2.01	25 X 30	2.18	30 X 25	2.04	35 X 25	2.48
5600	562	22 X 40	2.32	25 X 35	2.47	30 X 25	2.33		
6800	682								
		22 X 45	2.70	25 X 40	2.92	30 X 30	2.84	35 X 25	2.91
8200	822			25 X 45	3.13	30 X 35	3.13	35 X 30	3.23
10000	103			25 X 50	3.39	30 X 40	3.55	35 X 30	3.47
12000	123					30 X 45	4.04	35 X 35	3.98
15000	153					30 X 50	4.60	35 X 45	4.80

■ DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: $\Phi D \times L$ (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μF	V.D.C.	63V (1J)							
	CODE	22		25		30		35	
1000	102								
1200	122	22 X 25	1.19						
1500	152	22 X 25	1.30	25 X 25	1.38				
1800	182	22 X 25	1.36	25 X 25	1.52				
2200	222	22 X 30	1.55	25 X 25	1.60				
2700	272	22 X 35	1.89	25 X 30	1.90	30 X 25	1.97		
3300	332	22 X 40	1.99	25 X 35	2.06	30 X 25	2.00	35 X 25	2.22
3900	392	22 X 45	2.34	25 X 35	2.20	30 X 25	2.18	35 X 25	2.40
4700	472	22 X 50	2.58	25 X 40	2.51	30 X 30	2.48	35 X 25	2.54
5600	562			25 X 45	2.92	30 X 35	2.91	35 X 30	3.00
6800	682								
						30 X 50	3.65	35 X 30	3.30
8200	822					30 X 45	3.57	35 X 35	3.52
10000	103							35 X 40	3.90
12000	123							35 X 45	4.50
15000	153								

μF	V.D.C.	80V							
	CODE	22		25		30		35	
1000	102	22 X 25	1.05						
1200	122	22 X 30	1.24						
1500	152	22 X 35	1.48	25 X 25	1.38				
1800	182	22 X 40	1.72	25 X 30	1.63				
2200	222	22 X 45	1.82	25 X 30	1.65				
2700	272			25 X 45	2.17	30 X 30	2.03		
3300	332			25 X 50	2.51			35 X 25	2.30
3900	392					30 X 45	2.89	35 X 30	2.68
4700	472					30 X 50	2.97	35 X 30	2.64
5600	562					30 X 45	3.10	35 X 45	3.39
6800	682							35 X 40	3.56
								35 X 50	3.90
8200	822								
10000	103								
12000	123								
15000	153								

DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: $\Phi D \times L$ (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μF	V.D.C.	350V									
	CODE	22		25		30		35		40	
100	101	22 X 35	0.58								
120	121	22 X 35	0.69	25 X 25	0.69						
150	151	22 X 35	0.80								
180	181			25 X 30	0.82	30 X 25	0.85				
220	221	22 X 30	0.95	25 X 40	1.04	30 X 30	1.02	35 X 25	1.04		
270	271			25 X 45	1.17	30 X 35	1.17	35 X 25	1.12		
330	331			25 X 50	1.20	30 X 35	1.12	35 X 30	1.21		
390	391					30 X 40	1.29				
470	471					30 X 45	1.48	35 X 40	1.63		
560	561							35 X 40	1.69	40 X 30	1.63
680	681							35 X 35	1.52	40 X 35	1.58
820	821							35 X 50	1.86	40 X 50	2.01
1000	102							35 X 60	2.22	40 X 50	2.21
1200	122									40 X 55	2.52
1500	152									40 X 65	3.03
1800	182										
2200	222										

μF	V.D.C.	400V											
	CODE	22		25		30		35		40		45	
100	101	22 X 25	0.52										
120	121	22 X 30	0.62	25 X 25	0.61								
150	151	22 X 35	0.70	25 X 30	0.73								
180	181	22 X 40	0.81	25 X 35	0.85	30 X 25	0.83						
220	221	22 X 45	0.94	25 X 40	1.00	30 X 30	0.99						
270	271	22 X 55	1.14	25 X 45	1.17	30 X 35	1.16	35 X 25	1.08				
330	331			25 X 50	1.30	30 X 40	1.36						
390	391					30 X 45	1.56	35 X 30	1.44				
470	471					30 X 50	1.72	35 X 40	1.78				
560	561					30 X 55	1.95	35 X 40	1.86	40 X 35	1.91		
680	681							35 X 50	2.25	40 X 40	2.22		
820	821							35 X 55	2.58	40 X 50	2.67		
1000	102							35 X 65	2.90	40 X 55	2.92		
1200	122							35 X 75	3.00	40 X 60	3.00		
1500	152											45 X 70	4.23
1800	182											45 X 80	4.92
2200	222												

DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: $\Phi D \times L$ (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μF	V.D.C.	420V									
	CODE	22		25		30		35		40	
82	820	22 X 25	0.45								
100	101	22 X 30	0.53								
120	121	22 X 35	0.62	25 X 25	0.58						
150	151	22 X 40	0.74								
180	181	22 X 45	0.85	25 X 30	0.77						
220	221	22 X 50	1.00	25 X 40	0.96	30 X 30	0.95				
270	271	22 X 60	1.20	25 X 50	1.10	30 X 35	1.06	35 X 30	1.09		
330	331			25 X 55	1.36	30 X 40	1.24	35 X 30	1.21		
390	391					30 X 45	1.42	35 X 35	1.40	40 X 40	1.60
470	471							35 X 40	1.62	40 X 35	1.66
560	561							35 X 45	1.77	40 X 40	1.82
680	681							35 X 50	2.12	40 X 45	2.11
820	821							35 X 60	2.42	40 X 55	2.52
1000	102							35 X 70	3.08	40 X 60	2.88
1200	122							35 X 90	3.51	40 X 70	3.38
1500	152										

μF	V.D.C.	450V											
	CODE	22		25		30		35		40		45	
82	820	22 X 25	0.45										
100	101	22 X 30	0.53	25 X 25	0.51								
120	121	22 X 35	0.62										
150	151	22 X 40	0.74	25 X 30	0.70			35 X 25	0.83				
180	181	22 X 45	0.88	25 X 35	0.82	30 X 25	0.80						
220	221			25 X 40	0.96	30 X 30	0.95						
270	271			25 X 45	1.21	30 X 35	1.12						
330	331			25 X 55	1.35	30 X 40	1.31	35 X 30	1.27				
390	391					30 X 45	1.49	35 X 35	1.47	40 X 30	1.51		
470	471					30 X 55	1.79	35 X 40	1.71	40 X 35	1.75		
560	561							35 X 45	1.96	40 X 40	2.02		
680	681							35 X 55	2.35	40 X 45	2.33		
820	821									40 X 50	2.68		
1000	102									40 X 60	3.03		
1200	122							35 X 90	3.68	40 X 70	3.54		
1500	152											45 X 80	4.49

■ DIMENSION AND PERMISSIBLE RIPPLE CURRENT (CONTINUED)

(DIMENSION: Φ DxL (mm); RIPPLE CURRENT: A/RMS at 120Hz, 105°C)

μ F	V.D.C.	500V							
	CODE	22		25		30		35	
82	820	22 X 30	0.75	25 X 30	0.81				
100	101	22 X 40	0.94	25 X 40	1.00				
120	121	22 X 50	1.14	25 X 50	1.22				
150	151	22 X 50	1.27	25 X 55	1.42				
180	181					30 X 35	1.42		
220	221					30 X 35	1.57	35 X 40	1.74
270	271							35 X 45	2.02
330	331							35 X 50	2.45
390	391								
470	471							35 X 60	2.62
560	561								
680	681							35 X 70	3.38
820	821							35 X 70	4.00
1000	102							35 X 80	4.68
1200	122								
1500	152								

■ USEFUL LIFE CHART

