

**LSW SERIES**

**105°C 3000 hours, Screw Terminal Type**

**◆FEATURES**

- Load Life : 105°C 3000 hours.
- RoHS compliance.



**◆SPECIFICATIONS**

Items	Characteristics																																																																															
Category Temperature Range	-40~+105°C	-25~+105°C																																																																														
Rated Voltage Range	10~100V.DC	160~400V.DC																																																																														
Capacitance Tolerance	±20% (20°C, 120Hz)																																																																															
Leakage Current(MAX)	I=0.02CV or 5mA whichever is smaller.(After 5 minutes application of rated voltage) I=Leakage Current(µA) C=Capacitance(µF) V=Rated Voltage(V)																																																																															
Dissipation Factor(MAX) (tanδ)	<table border="1"> <thead> <tr> <th>V.DC \ φD</th> <th>36</th> <th>51</th> <th>64</th> <th>77</th> <th>90</th> <th>V.DC \ φD</th> <th>36</th> <th>51</th> <th>64</th> <th>77</th> <th>90</th> <th>(20°C, 120Hz)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0.75</td> <td>1.0</td> <td>1.3</td> <td>1.5</td> <td>1.5</td> <td>63</td> <td>0.2</td> <td>0.25</td> <td>0.3</td> <td>0.4</td> <td>0.4</td> <td></td> </tr> <tr> <td>16</td> <td>0.6</td> <td>0.7</td> <td>0.8</td> <td>1.0</td> <td>1.0</td> <td>80</td> <td>0.2</td> <td>0.2</td> <td>0.25</td> <td>0.3</td> <td>0.3</td> <td></td> </tr> <tr> <td>25</td> <td>0.4</td> <td>0.5</td> <td>0.7</td> <td>0.8</td> <td>0.8</td> <td>100</td> <td>0.15</td> <td>0.2</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td></td> </tr> <tr> <td>35</td> <td>0.3</td> <td>0.5</td> <td>0.6</td> <td>0.7</td> <td>0.7</td> <td>160~250</td> <td>0.15</td> <td>0.15</td> <td>0.2</td> <td>0.2</td> <td>0.2</td> <td></td> </tr> <tr> <td>50</td> <td>0.25</td> <td>0.3</td> <td>0.5</td> <td>0.6</td> <td>0.6</td> <td>315~400</td> <td>0.2</td> <td>0.2</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> <td></td> </tr> </tbody> </table>		V.DC \ φD	36	51	64	77	90	V.DC \ φD	36	51	64	77	90	(20°C, 120Hz)	10	0.75	1.0	1.3	1.5	1.5	63	0.2	0.25	0.3	0.4	0.4		16	0.6	0.7	0.8	1.0	1.0	80	0.2	0.2	0.25	0.3	0.3		25	0.4	0.5	0.7	0.8	0.8	100	0.15	0.2	0.25	0.25	0.25		35	0.3	0.5	0.6	0.7	0.7	160~250	0.15	0.15	0.2	0.2	0.2		50	0.25	0.3	0.5	0.6	0.6	315~400	0.2	0.2	0.25	0.25	0.25	
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Endurance	After applying rated voltage with rated ripple current for 3000 hours at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±15% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 175% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>		Capacitance Change	Within ±15% of the initial value.	Dissipation Factor	Not more than 175% of the specified value.	Leakage Current	Not more than the specified value.																																																																								
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Shelf Life	After storage for 500 hours with no voltage applied at 105°C, the capacitors shall be subjected to the voltage treatment in JIS C 5101-4 item 4.1 and shall be meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±15% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>		Capacitance Change	Within ±15% of the initial value.	Dissipation Factor	Not more than 150% of the specified value.	Leakage Current	Not more than the specified value.																																																																								
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**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency (Hz)		60(50)	120	400	1k	10k≤
Coefficient	10~50V.DC	0.80	1.00	1.03	1.05	1.08
	63~100V.DC	0.80	1.00	1.05	1.07	1.10
	160~400V.DC	0.80	1.00	1.10	1.13	1.18

**◆PART NUMBER**

LSW        M                 D×L  
 Rated Voltage    Series    Capacitance    Capacitance Tolerance    Option    Clamp Code    Case Size

**◆Dimensions in mm (not to scale)**

		(mm)					
	φD	W1	W2	W3	W4	W5	F
I type	36	24.0	30.0	3.5	7.0	10	12.7
	51	34.0	40.0	3.5	6.0	12	21.8
	64	40.0	45.0	4.5	7.0	12	28.2
	77	47.0	53.0	4.5	6.0	12	31.4
Y type	90	54.0	60.0	4.5	6.0	14	31.4
	51	32.5	37.5	4.5	6.0	12	21.8
	64	38.0	43.0	4.5	8.0	14	28.2
	77	44.5	49.0	4.5	7.0	14	31.4
	90	50.8	56.0	4.5	8.0	16	31.4

※Please refer to page 183 about recommended tightening torque and permissible current of terminal.

**◆STANDARD SIZE**

V.DC Cap(μF)	10V		16V		25V		35V		50V		63V		80V			
3300													36×50	3.0		
3900													36×63	3.3		
4700												36×50	3.2	36×83	3.6	
5600												36×63	3.5	36×83	3.9	
6800							36×50	2.5	36×50	3.6		36×63	3.8	36×83	4.3	
8200							36×50	2.8	36×63	3.9		36×83	4.3	36×98	5.1	
10000							36×50	3.8	36×83	4.2		36×83	4.7	36×118	5.8	
12000							36×63	4.3	36×83	5.0		36×98	5.6	51×83	7.0	
15000						36×50	4.2	36×83	4.7	36×98	5.5	36×118	6.4	51×83	7.6	
18000						36×63	4.6	36×83	5.1	36×98	5.7	51×83	7.5	51×98	7.7	
22000			36×50	4.0	36×83	5.2	36×98	6.6	36×118	7.5	51×83	7.5	51×118	9.0		
27000	36×50	4.4	36×63	5.0	36×83	5.4	36×118	6.7	51×83	7.5	51×98	8.7	64×99	10.1		
33000	36×63	5.5	36×83	5.2	36×98	6.5	51×83	7.1	51×98	9.3	51×118	10.3	64×119	11.6		
39000	36×63	6.0	36×83	5.8	36×98	7.5	51×83	8.4	51×98	9.4	64×99	11.2	64×139	13.5		
47000	36×83	6.6	36×98	6.8	36×118	8.9	51×98	9.9	51×118	11.7	64×119	12.9	77×101	15.8		
56000	36×83	7.5	36×98	6.9	51×83	10.0	51×98	10.3	64×99	12.4	64×139	15.2	77×121	17.0		
68000	36×98	7.6	36×118	8.4	51×98	10.7	51×118	11.4	64×119	15.1	77×101	16.0	77×141	20.4		
82000	36×118	9.0	51×83	8.4	51×98	12.0	64×99	12.5	77×101	15.5	77×121	17.7	77×151	21.5		
100000	51×83	10.2	51×98	11.3	51×118	13.1	64×119	15.5	77×101	16.3	77×141	21.5	90×151	22.3		
120000	51×83	11.0	51×98	11.4	64×99	13.7	77×101	15.5	77×121	19.1	90×141	22.4				
150000	51×98	13.4	51×118	12.5	64×119	16.4	77×121	17.9	77×141	23.4						
180000	51×118	14.0	64×99	14.2	77×101	16.7	77×141	20.0	90×141	23.7						
220000	64×99	14.5	64×119	16.6	77×121	20.5	77×151	24.1								
270000	64×119	16.0	77×101	17.5	77×141	21.3	90×141	26.5								
330000	77×101	18.0	77×121	24.3	77×151	26.0										
390000	77×101	19.5	77×141	25.2	90×141	27.2										
470000	77×121	20.0	77×151	26.7												
560000	77×141	24.1	90×141	29.1												
680000	90×141	26.5														

V.DC Cap(μF)	100V		160V		200V		250V		315V		350V		400V			
220											36×50	0.9	36×50	1.0		
270										36×50	1.0	36×50	1.0	36×63	1.0	
330										36×50	1.2	36×63	1.2	36×63	1.2	
390										36×63	1.3	36×83	1.3	36×83	1.4	
470							36×50	1.3	36×83	1.5	36×83	1.5	36×98	1.5		
560					36×50	1.4	36×63	1.6	36×83	1.6	36×98	1.7	36×98	1.7		
680					36×50	1.5	36×83	1.7	36×98	1.9	36×98	1.9	51×83	2.3		
820			36×50	1.4	36×83	1.9	36×83	1.9	36×118	2.2	36×118	2.1	51×98	2.4		
1000			36×63	1.9	36×83	2.2	36×98	2.3	51×83	2.3	51×98	2.5	51×118	2.7		
1200			36×83	2.3	36×83	2.3	36×98	2.4	51×98	2.7	51×98	2.7	51×118	3.0		
1500			36×83	2.6	36×98	2.9	36×118	2.9	51×98	3.1	51×118	3.3	64×99	3.5		
1800			36×83	2.6	36×98	2.9	36×118	3.0	51×118	3.6	64×99	3.8	64×119	3.6		
2200	36×50	2.9	36×98	3.2	36×118	3.3	51×98	3.8	64×99	4.2	64×119	4.6	77×101	4.1		
2700	36×63	3.4	36×118	3.2	51×83	3.8	51×118	4.5	64×119	4.3	77×101	4.6	77×121	4.8		
3300	36×83	3.9	36×118	3.7	51×98	4.7	64×99	5.2	77×101	4.9	77×121	5.3	77×141	5.7		
3900	36×83	4.2	51×98	4.3	51×118	5.4	64×119	5.2	77×121	5.8	77×141	6.2	90×141	6.7		
4700	36×83	4.6	51×98	4.8	64×99	6.2	64×119	5.7	77×121	6.3	90×141	7.4	90×141	7.4		
5600	36×98	4.9	51×118	5.5	64×99	6.3	77×101	6.4	77×141	7.3	90×141	8.1				
6800	36×118	5.5	64×99	6.3	64×119	7.3	77×121	7.6	90×141	8.9						
8200	51×83	6.2	64×119	7.1	77×101	8.5	77×141	8.3								
10000	51×98	6.7	77×101	7.9	77×121	9.5	90×141	9.9								
12000	51×98	7.3	77×121	9.0	77×141	10.5	90×141	10.8								
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33000	77×121	14.1														
39000	77×141	16.5														
47000	77×141	18.3														
56000	90×141	19.2														
68000	90×151	20.1														

↑ Ripple Current (A r.m.s./120Hz, 105°C)  
 Case Size φD×L(mm)