



LSM Series

Features

- Snap-in terminal type
- 105°C, 3,000 hours assured
- RoHS Compliance



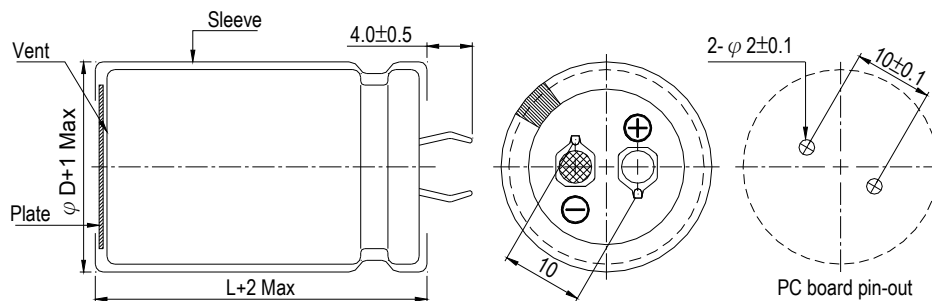
Sleeve & Marking Color: Black & White

Specifications

Items	Performance																																																			
	Category Temperature Range	16 ~ 100V -40°C ~ +105°C	160 ~ 500V -25°C ~ +105°C																																																	
Capacitance Tolerance	±20% (at 120Hz, 20°C)																																																			
Leakage Current (at 20°C)	$I = 3\sqrt{CV}$ or 1.5 mA whichever is smaller (after 5 minutes) Where, C = rated capacitance in $\mu\text{F}$ V = rated DC working voltage in V																																																			
Tan $\delta$ (at 120Hz, 20°C)	<table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>420</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td>Tan<math>\delta</math> (max)</td> <td>0.50</td> <td>0.45</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.10*</td> <td>0.10*</td> <td>0.10*</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> </tr> </tbody> </table> <p>*: 0.15 for <math>\phi D = 35\text{mm}</math></p>		Rated Voltage	16	25	35	50	63	80	100	160	200	250	350	400	420	450	500	Tan $\delta$ (max)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.10*	0.10*	0.10*	0.15	0.15	0.15	0.15	0.15																		
Rated Voltage	16	25	35	50	63	80	100	160	200	250	350	400	420	450	500																																					
Tan $\delta$ (max)	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.10*	0.10*	0.10*	0.15	0.15	0.15	0.15	0.15																																					
Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1"> <thead> <tr> <th colspan="2">Rated Voltage</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>420</th> <th>450</th> <th>500</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance Ratio</td> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>8</td> <td>8</td> <td>8</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>6</td> <td>6</td> <td>5</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>		Rated Voltage		16	25	35	50	63	80	100	160	200	250	350	400	420	450	500	Impedance Ratio	Z(-25°C)/Z(+20°C)	4	3	3	2	2	2	2	4	4	4	4	8	8	8	8	Z(-40°C)/Z(+20°C)	15	10	8	6	6	6	5	-	-	-	-	-	-	-	-
Rated Voltage		16	25	35	50	63	80	100	160	200	250	350	400	420	450	500																																				
Impedance Ratio	Z(-25°C)/Z(+20°C)	4	3	3	2	2	2	2	4	4	4	4	8	8	8	8																																				
	Z(-40°C)/Z(+20°C)	15	10	8	6	6	6	5	-	-	-	-	-	-	-	-																																				
Endurance	<table border="1"> <thead> <tr> <th>Test Time</th> <th>3,000 Hrs</th> </tr> </thead> <tbody> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Tan<math>\delta</math></td> <td>Less than 200% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </tbody> </table> <p>* The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 3,000 hours at 105°C.</p>		Test Time	3,000 Hrs	Capacitance Change	Within ±20% of initial value	Tan $\delta$	Less than 200% of specified value	Leakage Current	Within specified value																																										
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Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>Frequency (Hz)</th> <th>50 / 60</th> <th>100 / 120</th> <th>300</th> <th>1k</th> <th>10k up</th> </tr> </thead> <tbody> <tr> <td>Multiplier</td> <td>0.8</td> <td>1.0</td> <td>1.1</td> <td>1.3</td> <td>1.4</td> </tr> </tbody> </table>		Frequency (Hz)	50 / 60	100 / 120	300	1k	10k up	Multiplier	0.8	1.0	1.1	1.3	1.4																																						
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Multiplier	0.8	1.0	1.1	1.3	1.4																																															
Failure percentage	≤ 3% (During useful life)																																																			
Failure rate	Rated Voltage ≤ 100V DC: ≤ 40 fit (40 10 <sup>-9</sup> /h)	Rated voltage ≥ 160V DC: ≤ 70 fit (70 10 <sup>-9</sup> /h)																																																		

Diagram of Dimensions

Unit: mm





## Dimension & Permissible Ripple Current

Working Voltage V <sub>DC</sub>	Capacitance 120Hz, 20°C μF	φ×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number	
16	4,700	22 × 25	1.30	0.50	0.141	0.82	LSM472M1C--A2225	
	6,800	22 × 35	1.80	0.50	0.098	0.99	LSM682M1C--A2235	
	6,800	25 × 30	1.80	0.50	0.098	0.99	LSM682M1C--A2530	
	10,000	22 × 45	2.34	0.50	0.066	1.20	LSM103M1C--A2245	
	10,000	25 × 35	2.25	0.50	0.066	1.20	LSM103M1C--A2535	
	10,000	30 × 25	2.19	0.50	0.066	1.20	LSM103M1C--A3025	
	15,000	25 × 45	2.83	0.50	0.044	1.47	LSM153M1C--A2545	
	15,000	30 × 35	2.82	0.50	0.044	1.47	LSM153M1C--A3035	
	15,000	35 × 30	2.82	0.50	0.044	1.47	LSM153M1C--A3530	
	22,000	30 × 45	3.13	0.50	0.030	1.50	LSM223M1C--A3045	
	22,000	35 × 35	3.09	0.50	0.030	1.50	LSM223M1C--A3535	
25	3,300	22 × 25	1.25	0.45	0.181	0.86	LSM332M1E--A2225	
	4,700	22 × 30	1.61	0.45	0.127	1.03	LSM472M1E--A2230	
	4,700	25 × 25	1.61	0.45	0.127	1.03	LSM472M1E--A2525	
	6,800	22 × 35	1.91	0.45	0.088	1.24	LSM682M1E--A2235	
	6,800	25 × 30	1.91	0.45	0.088	1.24	LSM682M1E--A2530	
	6,800	30 × 25	1.91	0.45	0.088	1.24	LSM682M1E--A3025	
	10,000	22 × 45	2.51	0.45	0.060	1.50	LSM103M1E--A2245	
	10,000	25 × 40	2.42	0.45	0.060	1.50	LSM103M1E--A2540	
	10,000	30 × 30	2.42	0.45	0.060	1.50	LSM103M1E--A3030	
	10,000	35 × 25	2.42	0.45	0.060	1.50	LSM103M1E--A3525	
	15,000	25 × 45	3.12	0.45	0.040	1.50	LSM153M1E--A2545	
	15,000	30 × 35	3.11	0.45	0.040	1.50	LSM153M1E--A3035	
	15,000	35 × 30	3.11	0.45	0.040	1.50	LSM153M1E--A3530	
	22,000	30 × 45	3.85	0.45	0.027	1.50	LSM223M1E--A3045	
	22,000	35 × 40	3.85	0.45	0.027	1.50	LSM223M1E--A3540	
35	2,200	22 × 25	1.14	0.40	0.241	0.83	LSM222M1V--A2225	
	2,200	25 × 25	1.51	0.40	0.241	0.83	LSM222M1V--A2525	
	3,300	22 × 30	1.51	0.40	0.161	1.02	LSM332M1V--A2230	
	3,300	25 × 30	1.92	0.40	0.161	1.02	LSM332M1V--A2530	
	4,700	22 × 35	1.92	0.40	0.113	1.22	LSM472M1V--A2235	
	4,700	25 × 40	2.31	0.40	0.113	1.22	LSM472M1V--A2540	
	4,700	30 × 25	1.92	0.40	0.113	1.22	LSM472M1V--A3025	
	6,800	22 × 45	2.31	0.40	0.078	1.46	LSM682M1V--A2245	
	6,800	25 × 45	2.87	0.40	0.078	1.46	LSM682M1V--A2545	
	6,800	30 × 30	2.33	0.40	0.078	1.46	LSM682M1V--A3030	
	6,800	35 × 25	2.33	0.400	0.078	1.46	LSM682M1V--A3525	
	10,000	30 × 35	2.87	0.40	0.053	1.50	LSM103M1V--A3035	
	10,000	35 × 30	2.87	0.40	0.053	1.50	LSM103M1V--A3530	
	15,000	30 × 45	3.66	0.40	0.035	1.50	LSM153M1V--A3045	
	15,000	35 × 40	3.66	0.40	0.035	1.50	LSM153M1V--A3540	
	22,000	35 × 45	4.53	0.40	0.024	1.50	LSM223M1V--A3545	
	50	1,500	22 × 25	1.22	0.35	0.310	0.82	LSM152M1H--A2225
2,200		22 × 30	1.59	0.35	0.211	0.99	LSM222M1H--A2230	
2,200		25 × 25	1.59	0.35	0.211	0.99	LSM222M1H--A2525	
3,300		22 × 35	1.93	0.35	0.141	1.22	LSM332M1H--A2235	
3,300		25 × 30	1.88	0.35	0.141	1.22	LSM332M1H--A2530	
3,300		30 × 25	1.88	0.35	0.141	1.22	LSM332M1H--A3025	
4,700		22 × 45	2.43	0.35	0.099	1.45	LSM472M1H--A2245	
4,700		25 × 35	2.34	0.35	0.099	1.45	LSM472M1H--A2535	
4,700		30 × 30	2.42	0.35	0.099	1.45	LSM472M1H--A3030	
4,700		35 × 25	2.42	0.35	0.099	1.45	LSM472M1H--A3525	
6,800		25 × 45	3.10	0.35	0.068	1.50	LSM682M1H--A2545	
6,800		30 × 35	3.10	0.35	0.068	1.50	LSM682M1H--A3035	
6,800		35 × 30	3.10	0.35	0.068	1.50	LSM682M1H--A3530	
10,000		30 × 45	4.18	0.35	0.046	1.50	LSM103M1H--A3045	
10,000		35 × 40	4.20	0.35	0.046	1.50	LSM103M1H--A3540	
63		1,000	20 × 20	0.90	0.30	0.398	0.75	LSM102M1J--A2020
		1,000	22 × 20	0.90	0.30	0.398	0.75	LSM102M1J--A2220
	1,200	20 × 25	1.08	0.30	0.332	0.82	LSM122M1J--A2025	
	1,200	22 × 20	1.05	0.30	0.332	0.82	LSM122M1J--A2220	
	1,500	20 × 30	1.31	0.30	0.265	0.92	LSM152M1J--A2030	
	1,500	22 × 25	1.28	0.30	0.265	0.92	LSM152M1J--A2225	



## Dimension & Permissible Ripple Current

Working Voltage V <sub>DC</sub>	Capacitance 120Hz, 20°C μF	φD×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
<b>63</b>	1,500	25 × 20	1.27	0.30	0.265	0.92	LSM152M1J--A2520
	2,200	20 × 35	1.70	0.30	0.181	1.12	LSM222M1J--A2035
	2,200	22 × 35	1.78	0.30	0.181	1.12	LSM222M1J--A2235
	2,200	25 × 25	1.60	0.30	0.181	1.12	LSM222M1J--A2525
	2,200	30 × 25	1.78	0.30	0.181	1.12	LSM222M1J--A3025
	2,700	20 × 40	1.82	0.3	0.147	1.24	LSM272M1J--A2040
	2,700	22 × 35	1.81	0.3	0.147	1.24	LSM272M1J--A2235
	2,700	25 × 30	1.83	0.3	0.147	1.24	LSM272M1J--A2530
	2,700	30 × 25	1.89	0.3	0.147	1.24	LSM272M1J--A3025
	3,300	20 × 45	2.00	0.3	0.121	1.37	LSM332M1J--A2045
	3,300	22 × 40	2.00	0.3	0.121	1.37	LSM332M1J--A2240
	3,300	25 × 35	2.03	0.3	0.121	1.37	LSM332M1J--A2535
	3,300	30 × 25	1.81	0.3	0.121	1.37	LSM332M1J--A3025
	3,300	35 × 25	2.03	0.3	0.121	1.37	LSM332M1J--A3525
	3,900	20 × 50	2.16	0.3	0.102	1.49	LSM392M1J--A2050
	3,900	22 × 50	2.37	0.3	0.102	1.49	LSM392M1J--A2250
	3,900	25 × 40	2.22	0.3	0.102	1.49	LSM392M1J--A2540
	3,900	30 × 30	2.19	0.3	0.102	1.49	LSM392M1J--A3030
	3,900	35 × 25	2.24	0.3	0.102	1.49	LSM392M1J--A3525
	4,700	25 × 45	2.56	0.3	0.085	1.50	LSM472M1J--A2545
	4,700	30 × 35	2.66	0.3	0.085	1.50	LSM472M1J--A3035
	4,700	35 × 25	2.46	0.3	0.085	1.50	LSM472M1J--A3525
	5,600	25 × 50	2.93	0.3	0.071	1.50	LSM562M1J--A2550
	5,600	30 × 35	2.79	0.3	0.071	1.50	LSM562M1J--A3035
	5,600	35 × 30	2.88	0.3	0.071	1.50	LSM562M1J--A3530
	6,800	30 × 40	3.25	0.3	0.059	1.50	LSM682M1J--A3040
	6,800	35 × 35	3.26	0.3	0.059	1.50	LSM682M1J--A3535
	6,800	35 × 40	3.49	0.3	0.059	1.50	LSM682M1J--A3540
	8,200	35 × 40	3.52	0.3	0.049	1.50	LSM822M1J--A3540
	<b>80</b>	1,000	22 × 25	1.05	0.25	0.332	0.85
1,000		25 × 20	1.04	0.25	0.332	0.85	LSM102M1K--A2520
1,200		20 × 30	1.17	0.25	0.276	0.93	LSM122M1K--A2030
1,200		22 × 30	1.24	0.25	0.276	0.93	LSM122M1K--A2230
1,200		25 × 25	1.24	0.25	0.276	0.93	LSM122M1K--A2525
1,500		20 × 40	1.49	0.25	0.221	1.04	LSM152M1K--A2040
1,500		22 × 35	1.54	0.25	0.221	1.04	LSM152M1K--A2235
1,500		25 × 30	1.54	0.25	0.221	1.04	LSM152M1K--A2530
1,500		30 × 25	1.61	0.25	0.221	1.04	LSM152M1K--A3025
2,200		20 × 50	1.94	0.25	0.151	1.26	LSM222M1K--A2050
2,200		22 × 45	1.95	0.25	0.151	1.26	LSM222M1K--A2245
2,200		25 × 35	1.94	0.25	0.151	1.26	LSM222M1K--A2535
2,200		30 × 30	2.05	0.25	0.151	1.26	LSM222M1K--A3030
2,200		35 × 25	2.10	0.25	0.151	1.26	LSM222M1K--A3525
3,300		25 × 50	2.25	0.25	0.101	1.50	LSM332M1K--A2550
3,300		30 × 35	2.24	0.25	0.101	1.50	LSM332M1K--A3035
3,300		35 × 30	2.30	0.25	0.101	1.50	LSM332M1K--A3530
4,700		30 × 45	2.84	0.25	0.071	1.50	LSM472M1K--A3045
4,700	35 × 35	2.80	0.25	0.071	1.50	LSM472M1K--A3535	
<b>100</b>	1,000	20 × 35	1.28	0.20	0.265	0.95	LSM102M2A--A2035
	1,000	22 × 30	1.36	0.20	0.265	0.95	LSM102M2A--A2230
	1,000	25 × 25	1.36	0.20	0.265	0.95	LSM102M2A--A2525
	1,200	20 × 40	1.49	0.20	0.221	1.04	LSM122M2A--A2040
	1,200	22 × 35	1.48	0.20	0.221	1.04	LSM122M2A--A2235
	1,200	25 × 30	1.49	0.20	0.221	1.04	LSM122M2A--A2530
	1,500	20 × 45	1.75	0.20	0.177	1.16	LSM152M2A--A2045
	1,500	22 × 40	1.82	0.20	0.177	1.16	LSM152M2A--A2240
	1,500	25 × 35	1.85	0.20	0.177	1.16	LSM152M2A--A2535
	1,500	30 × 25	1.80	0.20	0.177	1.16	LSM152M2A--A3025
	2,200	25 × 45	2.50	0.20	0.121	1.41	LSM222M2A--A2545
	2,200	30 × 35	2.50	0.20	0.121	1.41	LSM222M2A--A3035
	2,200	35 × 30	2.50	0.20	0.121	1.41	LSM222M2A--A3530
	2,700	25 × 50	2.70	0.20	0.098	1.50	LSM272M2A--A2550
	2,700	30 × 40	2.72	0.20	0.098	1.50	LSM272M2A--A3040
	2,700	35 × 35	2.82	0.20	0.098	1.50	LSM272M2A--A3535
	3,300	30 × 45	3.11	0.20	0.080	1.50	LSM332M2A--A3045



## Dimension & Permissible Ripple Current

Working Voltage V <sub>DC</sub>	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
<b>100</b>	3,300	35 × 35	3.07	0.20	0.080	1.50	LSM332M2A--A3535
	3,900	30 × 50	3.40	0.20	0.068	1.50	LSM392M2A--A3050
	3,900	35 × 40	3.38	0.20	0.068	1.50	LSM392M2A--A3540
	4,700	35 × 45	3.90	0.20	0.056	1.50	LSM472M2A--A3545
<b>160</b>	180	20 × 20	0.61	0.10	0.737	0.51	LSM181M2C--A2020
	220	20 × 25	0.73	0.10	0.603	0.56	LSM221M2C--A2025
	220	22 × 20	0.71	0.10	0.603	0.56	LSM221M2C--A2220
	270	20 × 25	0.81	0.10	0.491	0.62	LSM271M2C--A2025
	270	25 × 20	0.85	0.10	0.491	0.62	LSM271M2C--A2520
	330	20 × 30	0.97	0.10	0.402	0.69	LSM331M2C--A2030
	330	22 × 25	0.98	0.10	0.402	0.69	LSM331M2C--A2225
	330	25 × 20	0.94	0.10	0.402	0.69	LSM331M2C--A2520
	390	20 × 30	1.06	0.10	0.340	0.75	LSM391M2C--A2030
	390	22 × 25	1.03	0.10	0.340	0.75	LSM391M2C--A2225
	390	25 × 25	1.09	0.10	0.340	0.75	LSM391M2C--A2525
	470	20 × 35	1.17	0.10	0.282	0.82	LSM471M2C--A2035
	470	22 × 30	1.21	0.10	0.282	0.82	LSM471M2C--A2230
	470	25 × 25	1.19	0.10	0.282	0.82	LSM471M2C--A2525
	560	20 × 40	1.35	0.10	0.237	0.90	LSM561M2C--A2040
	560	22 × 35	1.40	0.10	0.237	0.90	LSM561M2C--A2235
	560	25 × 30	1.40	0.10	0.237	0.90	LSM561M2C--A2530
	560	30 × 25	1.40	0.10	0.237	0.90	LSM561M2C--A3025
	680	20 × 45	1.57	0.10	0.195	0.99	LSM681M2C--A2045
	680	22 × 40	1.62	0.10	0.195	0.99	LSM681M2C--A2240
	680	25 × 35	1.61	0.10	0.195	0.99	LSM681M2C--A2535
	680	30 × 25	1.54	0.10	0.195	0.99	LSM681M2C--A3025
	820	22 × 45	1.86	0.10	0.162	1.09	LSM821M2C--A2245
	820	25 × 40	1.86	0.10	0.162	1.09	LSM821M2C--A2540
	820	30 × 30	1.79	0.10	0.162	1.09	LSM821M2C--A3030
	820	35 × 25	1.79	0.15	0.243	1.09	LSM821M2C--A3525
	1,000	22 × 50	2.18	0.10	0.133	1.20	LSM102M2C--A2250
	1,000	25 × 45	2.15	0.10	0.133	1.20	LSM102M2C--A2545
	1,000	30 × 35	2.09	0.10	0.133	1.20	LSM102M2C--A3035
	1,000	35 × 25	1.98	0.15	0.199	1.20	LSM102M2C--A3525
	1,200	25 × 50	2.35	0.10	0.111	1.31	LSM122M2C--A2550
	1,200	30 × 40	2.35	0.10	0.111	1.31	LSM122M2C--A3040
1,200	35 × 30	2.29	0.15	0.166	1.31	LSM122M2C--A3530	
1,500	30 × 35	2.56	0.10	0.088	1.47	LSM152M2C--A3035	
1,500	35 × 35	2.72	0.15	0.133	1.47	LSM152M2C--A3535	
1,800	30 × 45	2.97	0.10	0.074	1.50	LSM182M2C--A3045	
1,800	35 × 40	3.09	0.15	0.111	1.50	LSM182M2C--A3540	
2,200	30 × 60	3.48	0.10	0.060	1.50	LSM222M2C--A3060	
2,200	35 × 50	3.51	0.15	0.090	1.50	LSM222M2C--A3550	
2,700	35 × 55	4.05	0.15	0.074	1.50	LSM272M2C--A3555	
<b>200</b>	180	22 × 20	0.70	0.10	0.737	0.57	LSM181M2D--A2220
	220	20 × 25	0.80	0.10	0.603	0.63	LSM221M2D--A2025
	220	25 × 20	0.84	0.10	0.603	0.63	LSM221M2D--A2520
	270	20 × 30	0.96	0.10	0.491	0.70	LSM271M2D--A2030
	270	22 × 25	1.03	0.10	0.491	0.70	LSM271M2D--A2225
	330	22 × 30	1.21	0.10	0.402	0.77	LSM331M2D--A2230
	390	20 × 35	1.24	0.10	0.340	0.84	LSM391M2D--A2035
	390	22 × 35	1.39	0.10	0.340	0.84	LSM391M2D--A2235
	390	25 × 25	1.31	0.10	0.340	0.84	LSM391M2D--A2525
	470	20 × 40	1.44	0.10	0.282	0.92	LSM471M2D--A2040
	470	22 × 35	1.52	0.10	0.282	0.92	LSM471M2D--A2235
	470	25 × 30	1.52	0.10	0.282	0.92	LSM471M2D--A2530
	560	20 × 50	1.74	0.10	0.237	1.00	LSM561M2D--A2050
	560	22 × 40	1.66	0.10	0.237	1.00	LSM561M2D--A2240
	560	25 × 35	1.75	0.10	0.237	1.00	LSM561M2D--A2535
	560	30 × 25	1.64	0.10	0.237	1.00	LSM561M2D--A3025
	680	22 × 45	2.04	0.10	0.195	1.11	LSM681M2D--A2245
	680	25 × 40	2.04	0.10	0.195	1.11	LSM681M2D--A2540
	680	30 × 30	1.96	0.10	0.195	1.11	LSM681M2D--A3030
	820	25 × 45	2.34	0.10	0.162	1.21	LSM821M2D--A2545
820	30 × 35	2.27	0.10	0.162	1.21	LSM821M2D--A3035	



## Dimension & Permissible Ripple Current

Working Voltage V <sub>DC</sub>	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
<b>200</b>	820	35 × 25	1.99	0.15	0.243	1.21	LSM821M2D--A3525
	1,000	25 × 50	2.26	0.10	0.133	1.34	LSM102M2D--A2550
	1,000	30 × 40	2.63	0.10	0.133	1.34	LSM102M2D--A3040
	1,000	35 × 30	2.51	0.15	0.199	1.34	LSM102M2D--A3530
	1,200	30 × 45	3.00	0.10	0.111	1.47	LSM122M2D--A3045
	1,200	35 × 35	2.92	0.15	0.166	1.47	LSM122M2D--A3535
	1,500	30 × 50	3.36	0.10	0.088	1.50	LSM152M2D--A3050
	1,500	35 × 40	3.34	0.15	0.133	1.50	LSM152M2D--A3540
	1,800	30 × 60	3.64	0.10	0.074	1.50	LSM182M2D--A3060
	1,800	35 × 45	3.51	0.15	0.111	1.50	LSM182M2D--A3545
	2,200	35 × 55	4.01	0.15	0.090	1.50	LSM222M2D--A3555
	<b>250</b>	180	22 × 25	0.77	0.10	0.737	0.64
220		20 × 30	0.87	0.10	0.603	0.70	LSM221M2E--A2030
270		20 × 35	1.03	0.10	0.491	0.78	LSM271M2E--A2035
270		22 × 30	1.02	0.10	0.491	0.78	LSM271M2E--A2230
270		25 × 25	1.08	0.10	0.491	0.78	LSM271M2E--A2525
330		20 × 40	1.21	0.10	0.402	0.86	LSM331M2E--A2040
330		22 × 35	1.20	0.10	0.402	0.86	LSM331M2E--A2235
330		25 × 30	1.27	0.10	0.402	0.86	LSM331M2E--A2530
390		20 × 50	1.45	0.10	0.340	0.94	LSM391M2E--A2050
390		22 × 40	1.38	0.10	0.340	0.94	LSM391M2E--A2240
390		25 × 35	1.46	0.10	0.340	0.94	LSM391M2E--A2535
390		30 × 25	1.39	0.10	0.340	0.94	LSM391M2E--A3025
470		22 × 45	1.46	0.10	0.282	1.03	LSM471M2E--A2245
470		25 × 40	1.69	0.10	0.282	1.03	LSM471M2E--A2540
470		30 × 30	1.63	0.10	0.282	1.03	LSM471M2E--A3030
560		25 × 45	1.93	0.10	0.237	1.12	LSM561M2E--A2545
560		35 × 25	1.78	0.15	0.355	1.12	LSM561M2E--A3525
680		25 × 50	2.04	0.10	0.195	1.24	LSM681M2E--A2550
680		30 × 35	2.06	0.10	0.195	1.24	LSM681M2E--A3035
680		35 × 30	2.06	0.15	0.293	1.24	LSM681M2E--A3530
820		30 × 45	2.48	0.10	0.162	1.36	LSM821M2E--A3045
820		35 × 35	2.41	0.15	0.243	1.36	LSM821M2E--A3535
1,000		30 × 50	2.65	0.10	0.133	1.50	LSM102M2E--A3050
1,000		35 × 40	2.76	0.15	0.199	1.50	LSM102M2E--A3540
1,200	30 × 60	3.15	0.10	0.111	1.50	LSM122M2E--A3060	
1,200	35 × 45	3.14	0.15	0.166	1.50	LSM122M2E--A3545	
1,800	35 × 60	3.97	0.15	0.111	1.50	LSM182M2E--A3560	
<b>350</b>	100	20 × 30	0.53	0.15	1.990	0.56	LSM101M2V--A2030
	100	22 × 25	0.52	0.15	1.990	0.56	LSM101M2V--A2225
	100	25 × 20	0.52	0.15	1.990	0.56	LSM101M2V--A2520
	120	20 × 35	0.63	0.15	1.659	0.61	LSM121M2V--A2035
	120	22 × 30	0.62	0.15	1.659	0.61	LSM121M2V--A2230
	120	25 × 25	0.65	0.15	1.659	0.61	LSM121M2V--A2525
	150	20 × 40	0.74	0.15	1.327	0.69	LSM151M2V--A2040
	150	22 × 35	0.74	0.15	1.327	0.69	LSM151M2V--A2235
	180	20 × 45	0.81	0.15	1.106	0.75	LSM181M2V--A2045
	180	22 × 40	0.81	0.15	1.106	0.75	LSM181M2V--A2240
	180	25 × 30	0.77	0.15	1.106	0.75	LSM181M2V--A2530
	180	30 × 25	0.80	0.15	1.106	0.75	LSM181M2V--A3025
	220	20 × 50	0.94	0.15	0.905	0.83	LSM221M2V--A2050
	220	22 × 45	0.94	0.15	0.905	0.83	LSM221M2V--A2245
	220	25 × 35	0.91	0.15	0.905	0.83	LSM221M2V--A2535
	270	22 × 50	1.09	0.15	0.737	0.92	LSM271M2V--A2250
	270	25 × 40	1.06	0.15	0.737	0.92	LSM271M2V--A2540
	270	30 × 30	1.05	0.15	0.737	0.92	LSM271M2V--A3030
	270	35 × 25	1.08	0.15	0.737	0.92	LSM271M2V--A3525
	330	25 × 45	1.24	0.15	0.603	1.02	LSM331M2V--A2545
	330	30 × 35	1.24	0.15	0.603	1.02	LSM331M2V--A3035
	330	35 × 30	1.33	0.15	0.603	1.02	LSM331M2V--A3530
	390	30 × 40	1.42	0.15	0.510	1.11	LSM391M2V--A3040
	390	35 × 30	1.39	0.15	0.510	1.11	LSM391M2V--A3530
	470	30 × 45	1.56	0.15	0.423	1.22	LSM471M2V--A3045
	470	35 × 35	1.53	0.15	0.423	1.22	LSM471M2V--A3535
	560	30 × 50	1.78	0.15	0.355	1.33	LSM561M2V--A3050



## Dimension & Permissible Ripple Current

Working Voltage V <sub>DC</sub>	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
<b>350</b>	560	35 × 40	1.77	0.15	0.355	1.33	LSM561M2V--A3540
	680	30 × 60	1.94	0.15	0.293	1.46	LSM681M2V--A3060
	680	35 × 50	1.95	0.15	0.293	1.46	LSM681M2V--A3550
	820	35 × 55	2.23	0.15	0.243	1.50	LSM821M2V--A3555
<b>400</b>	56	22 × 20	0.41	0.15	3.554	0.45	LSM560M2G--A2220
	68	22 × 25	0.52	0.15	2.927	0.49	LSM680M2G--A2225
	68	25 × 20	0.49	0.15	2.927	0.49	LSM680M2G--A2520
	82	20 × 30	0.54	0.15	2.427	0.54	LSM820M2G--A2030
	100	20 × 35	0.64	0.15	1.990	0.60	LSM101M2G--A2035
	100	22 × 30	0.67	0.15	1.990	0.60	LSM101M2G--A2230
	120	20 × 40	0.74	0.15	1.659	0.66	LSM121M2G--A2040
	120	22 × 35	0.78	0.15	1.659	0.66	LSM121M2G--A2235
	120	25 × 25	0.69	0.15	1.659	0.66	LSM121M2G--A2525
	150	20 × 45	0.87	0.15	1.327	0.73	LSM151M2G--A2045
	150	22 × 40	0.91	0.15	1.327	0.73	LSM151M2G--A2240
	150	25 × 30	0.83	0.15	1.327	0.73	LSM151M2G--A2530
	150	30 × 25	0.86	0.15	1.327	0.73	LSM151M2G--A3025
	180	22 × 45	1.04	0.15	1.106	0.80	LSM181M2G--A2245
	180	25 × 35	0.97	0.15	1.106	0.80	LSM181M2G--A2535
	220	22 × 50	1.17	0.15	0.905	0.89	LSM221M2G--A2250
	220	25 × 40	1.14	0.15	0.905	0.89	LSM221M2G--A2540
	220	30 × 30	1.12	0.15	0.905	0.89	LSM221M2G--A3030
	220	35 × 25	1.15	0.15	0.905	0.89	LSM221M2G--A3525
	270	25 × 50	1.40	0.15	0.737	0.99	LSM271M2G--A2550
	270	30 × 35	1.39	0.15	0.737	0.99	LSM271M2G--A3035
	270	35 × 30	1.31	0.15	0.737	0.99	LSM271M2G--A3530
	330	30 × 40	1.31	0.15	0.603	1.09	LSM331M2G--A3040
	330	35 × 30	1.27	0.15	0.603	1.09	LSM331M2G--A3530
	390	30 × 45	1.49	0.15	0.510	1.18	LSM391M2G--A3045
	390	35 × 35	1.47	0.15	0.510	1.18	LSM391M2G--A3535
	470	30 × 50	1.72	0.15	0.423	1.30	LSM471M2G--A3050
	470	35 × 40	1.71	0.15	0.423	1.30	LSM471M2G--A3540
560	30 × 60	2.03	0.15	0.355	1.42	LSM561M2G--A3060	
560	35 × 45	2.23	0.15	0.355	1.42	LSM561M2G--A3545	
680	35 × 55	2.31	0.15	0.293	1.50	LSM681M2G--A3555	
820	35 × 60	2.54	0.15	0.243	1.50	LSM821M2G--A3560	
<b>420</b>	56	20 × 25	0.41	0.15	3.554	0.46	LSM560M2P--A2025
	56	22 × 20	0.40	0.15	3.554	0.46	LSM560M2P--A2220
	68	20 × 30	0.49	0.15	2.927	0.51	LSM680M2P--A2030
	68	22 × 25	0.48	0.15	2.927	0.51	LSM680M2P--A2225
	82	20 × 30	0.54	0.15	2.427	0.56	LSM820M2P--A2030
	82	22 × 25	0.53	0.15	2.427	0.56	LSM820M2P--A2225
	100	20 × 35	0.64	0.15	1.990	0.61	LSM101M2P--A2035
	100	22 × 30	0.63	0.15	1.990	0.61	LSM101M2P--A2230
	100	25 × 25	0.63	0.15	1.990	0.61	LSM101M2P--A2525
	120	20 × 40	0.74	0.15	1.659	0.67	LSM121M2P--A2040
	120	22 × 35	0.74	0.15	1.659	0.67	LSM121M2P--A2235
	120	25 × 30	0.78	0.15	1.659	0.67	LSM121M2P--A2530
	150	20 × 50	0.92	0.15	1.327	0.75	LSM151M2P--A2050
	150	22 × 40	0.87	0.15	1.327	0.75	LSM151M2P--A2240
	150	30 × 25	0.80	0.15	1.327	0.75	LSM151M2P--A3025
	180	22 × 45	0.93	0.15	1.106	0.82	LSM181M2P--A2245
	180	25 × 35	0.90	0.15	1.106	0.82	LSM181M2P--A2535
	180	30 × 30	0.98	0.15	1.106	0.82	LSM181M2P--A3030
	220	25 × 45	1.01	0.15	0.905	0.91	LSM221M2P--A2545
	220	30 × 35	1.05	0.15	0.905	0.91	LSM221M2P--A3035
	220	35 × 25	0.97	0.15	0.905	0.91	LSM221M2P--A3525
	270	25 × 50	1.17	0.15	0.737	1.01	LSM271M2P--A2550
	270	30 × 40	1.22	0.15	0.737	1.01	LSM271M2P--A3040
	270	35 × 30	1.15	0.15	0.737	1.01	LSM271M2P--A3530
	330	30 × 45	1.37	0.15	0.603	1.12	LSM331M2P--A3045
	330	35 × 35	1.35	0.15	0.603	1.12	LSM331M2P--A3535
	390	30 × 50	1.56	0.15	0.510	1.21	LSM391M2P--A3050
	390	35 × 40	1.55	0.15	0.510	1.21	LSM391M2P--A3540
470	30 × 60	1.76	0.15	0.423	1.33	LSM471M2P--A3060	



Dimension & Permissible Ripple Current

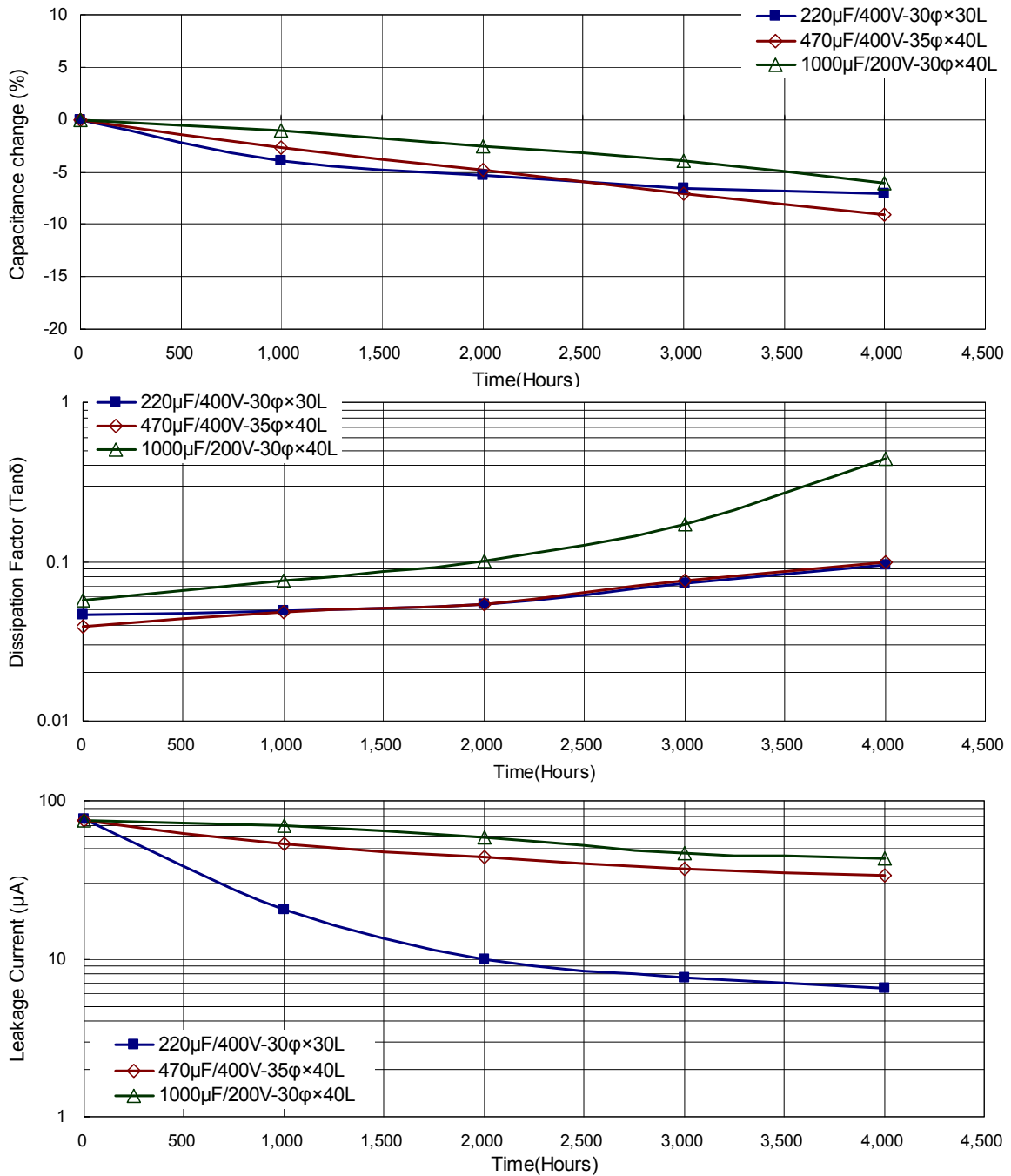
Working Voltage V. DC	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
420	470	35 × 45	1.70	0.15	0.423	1.33	LSM471M2P--A3545
	560	35 × 50	1.94	0.15	0.355	1.45	LSM561M2P--A3550
	680	35 × 60	2.31	0.15	0.293	1.50	LSM681M2P--A3560
450	56	20 × 25	0.41	0.15	3.554	0.48	LSM560M2W--A2025
	82	20 × 30	0.54	0.15	2.427	0.58	LSM820M2W--A2030
	82	25 × 25	0.57	0.15	2.427	0.58	LSM820M2W--A2525
	100	20 × 45	0.71	0.15	1.990	0.64	LSM101M2W--A2045
	100	22 × 35	0.67	0.15	1.990	0.64	LSM101M2W--A2235
	120	20 × 50	0.82	0.15	1.659	0.70	LSM121M2W--A2050
	120	22 × 40	0.78	0.15	1.659	0.70	LSM121M2W--A2240
	120	25 × 30	0.74	0.15	1.659	0.70	LSM121M2W--A2530
	120	30 × 25	0.77	0.15	1.659	0.70	LSM121M2W--A3025
	150	22 × 45	0.92	0.15	1.327	0.78	LSM151M2W--A2245
	150	25 × 35	0.89	0.15	1.327	0.78	LSM151M2W--A2535
	150	30 × 30	0.93	0.15	1.327	0.78	LSM151M2W--A3030
	150	35 × 25	0.95	0.15	1.327	0.78	LSM151M2W--A3525
	180	22 × 50	1.06	0.15	1.106	0.85	LSM181M2W--A2250
	180	25 × 40	1.03	0.15	1.106	0.85	LSM181M2W--A2540
	180	30 × 30	1.01	0.15	1.106	0.85	LSM181M2W--A3030
	180	35 × 25	1.04	0.15	1.106	0.85	LSM181M2W--A3525
	220	25 × 45	1.18	0.15	0.905	0.94	LSM221M2W--A2545
	220	30 × 35	1.18	0.15	0.905	0.94	LSM221M2W--A3035
	220	35 × 30	1.22	0.15	0.905	0.94	LSM221M2W--A3530
	270	30 × 40	1.17	0.15	0.737	1.05	LSM271M2W--A3040
	330	30 × 50	1.42	0.15	0.603	1.16	LSM331M2W--A3050
330	35 × 35	1.64	0.15	0.603	1.16	LSM331M2W--A3535	
390	35 × 40	1.54	0.15	0.510	1.26	LSM391M2W--A3540	
470	35 × 50	1.85	0.15	0.423	1.38	LSM471M2W--A3550	
560	35 × 50	2.02	0.15	0.355	1.50	LSM561M2W--A3550	
500	82	22 × 35	0.68	0.15	2.427	0.61	LSM820M2H--A2235
	82	25 × 35	0.73	0.15	2.427	0.61	LSM820M2H--A2535
	100	22 × 40	0.79	0.15	1.990	0.67	LSM101M2H--A2240
	100	25 × 40	0.85	0.15	1.990	0.67	LSM101M2H--A2540
	100	30 × 35	1.20	0.15	1.990	0.67	LSM101M2H--A3035
	120	22 × 45	0.91	0.15	1.659	0.73	LSM121M2H--A2245
	120	25 × 45	0.98	0.15	1.659	0.73	LSM121M2H--A2545
	150	22 × 50	1.07	0.15	1.327	0.82	LSM151M2H--A2250
	150	25 × 55	1.20	0.15	1.327	0.82	LSM151M2H--A2555
	220	30 × 40	1.40	0.15	0.905	0.99	LSM221M2H--A3040
	270	35 × 35	1.61	0.15	0.737	1.10	LSM271M2H--A3535
	330	35 × 40	1.88	0.15	0.603	1.22	LSM331M2H--A3540
	390	35 × 45	2.15	0.15	0.510	1.32	LSM391M2H--A3545

Part Numbering System

LSM series	100μF	±20%	400V		4.0±0.5mm	22 φ × 30L	Pb-free Terminal + PET Sleeve																								
<b>LSM</b>	<b>101</b>	<b>M</b>	<b>2G</b>	--	<b>A</b>	<b>2230</b>																									
Series name	Capacitance	Capacitance tolerance	Rated voltage	Terminal type	Terminal length	Case size	Terminal and Sleeve Type																								
Example:	Example:	Example:	Example:	Example:	Example:	Example:																									
<table border="1"> <tr><th>Cap.</th><th>Symbol</th></tr> <tr><td>56</td><td>560</td></tr> <tr><td>220</td><td>221</td></tr> <tr><td>470</td><td>471</td></tr> </table>	Cap.	Symbol	56	560	220	221	470	471	<table border="1"> <tr><th>WV</th><th>Symbol</th></tr> <tr><td>400</td><td>2G</td></tr> <tr><td>450</td><td>2W</td></tr> </table>	WV	Symbol	400	2G	450	2W	<table border="1"> <tr><th>Type</th><th>Symbol</th></tr> <tr><td>2 pins</td><td>--</td></tr> <tr><td>5 pins</td><td>L5</td></tr> </table>	Type	Symbol	2 pins	--	5 pins	L5	<table border="1"> <tr><th>φ D×L</th><th>Code</th></tr> <tr><td>22×30</td><td>2230</td></tr> <tr><td>25×25</td><td>2525</td></tr> <tr><td>30×40</td><td>3040</td></tr> </table>	φ D×L	Code	22×30	2230	25×25	2525	30×40	3040
Cap.	Symbol																														
56	560																														
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25×25	2525																														
30×40	3040																														
		M = ±20% K = ±10%			6.3±1.0 mm																										

Note: For more details, please refer to "Part Numbering System (Snap-in Type)" on page 13.

## Typical Endurance Curves



## Useful Life Chart

