



LV/LVG Series

Features

- Snap-in terminal type
- Suitable for high voltage circuits
- Frame retardant type capacitor
- RoHS Compliance



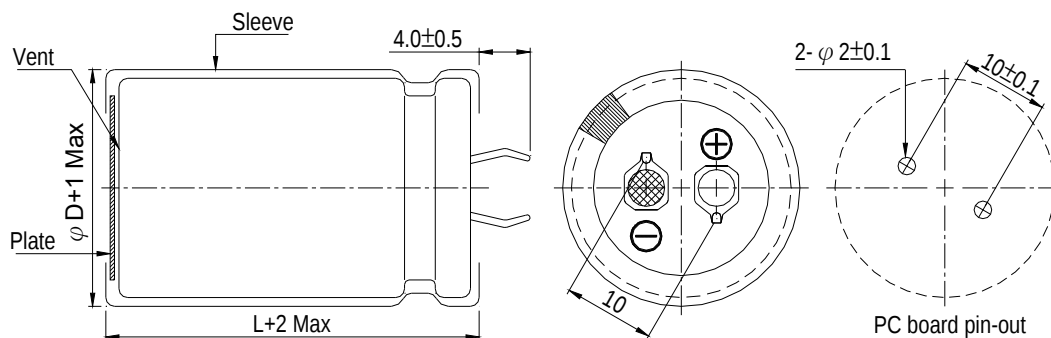
Sleeve & Marking Color: Black & White

Specifications

Items	Performance																													
Series	LV			LVG																										
Category Temperature Range	-25°C ~ +85°C			-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 μF V = rated DC working voltage in V																													
Dissipation Factor (Tanδ at 120Hz, 20°C)	<table><tr><td colspan="2">Rated Voltage</td><td>400</td><td>450</td></tr><tr><td rowspan="2">Tanδ (max)</td><td>LV</td><td>0.15</td><td>0.25</td></tr><tr><td>LVG</td><td>0.25</td><td>0.25</td></tr></table>						Rated Voltage		400	450	Tanδ (max)	LV	0.15	0.25	LVG	0.25	0.25													
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Tanδ (max)	LV	0.15	0.25																											
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Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below. <table><tr><td colspan="2">Rated Voltage</td><td>400</td><td>450</td></tr><tr><td rowspan="2">Impedance Ratio</td><td>Z(-25°C)/ Z(+20°C)</td><td>LV</td><td>8</td><td>12</td></tr><tr><td></td><td>LVG</td><td>12</td><td>12</td></tr></table>						Rated Voltage		400	450	Impedance Ratio	Z(-25°C)/ Z(+20°C)	LV	8	12		LVG	12	12											
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Impedance Ratio	Z(-25°C)/ Z(+20°C)	LV	8	12																										
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Endurance	<table><tr><td>Test Time</td><td colspan="5">2,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="5">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td colspan="5">Less than 200% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="5">Within specified value</td></tr></table> * The above Specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied with rated ripple current for 2,000 hours at 85°C / 105°C.						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				
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Shelf Life Test	<table><tr><td>Test Time</td><td colspan="5">1,000 Hrs</td></tr><tr><td>Capacitance Change</td><td colspan="5">Within ±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td colspan="5">Less than 150% of specified value</td></tr><tr><td>Leakage Current</td><td colspan="5">Within specified value</td></tr></table> * The above Specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 85°C / 105°C 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				
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Capacitance Change	Within ±20% of initial value																													
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Ripple Current & Frequency Multipliers	<table><tr><td>Frequency (Hz)</td><td>50 / 60</td><td>100 / 120</td><td>500</td><td>1k</td><td>10k up</td></tr><tr><td>Multiplier</td><td>0.8</td><td>1.0</td><td>1.05</td><td>1.10</td><td>1.15</td></tr></table>						Frequency (Hz)	50 / 60	100 / 120	500	1k	10k up	Multiplier	0.8	1.0	1.05	1.10	1.15												
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Multiplier	0.8	1.0	1.05	1.10	1.15																									
Failure percentage	≤ 3 % (During useful life)																													
Failure rate	≤ 70 fit (70 10 ⁻⁹ /h)																													

Diagram of Dimensions

Unit: mm





Dimension & Permissible Ripple Current

1. LV Series

Working Voltage V. DC	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 85°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
400	330	35 × 30	1.95	0.15	0.603	1.09	LV-331M2G--A3530
	390	35 × 35	2.17	0.15	0.510	1.18	LV-391M2G--A3535
	470	35 × 40	2.42	0.15	0.423	1.30	LV-471M2G--A3540
	560	35 × 45	2.71	0.15	0.355	1.42	LV-561M2G--A3545
	680	35 × 50	2.95	0.15	0.293	1.50	LV-681M2G--A3550
450	220	35 × 30	1.71	0.25	1.508	0.94	LV-221M2W--A3530
	270	35 × 35	1.81	0.25	1.229	1.05	LV-271M2W--A3535
	330	35 × 35	2.05	0.25	1.005	1.16	LV-331M2W--A3535
	390	35 × 40	2.27	0.25	0.851	1.26	LV-391M2W--A3540
	470	35 × 45	2.55	0.25	0.706	1.38	LV-471M2W--A3545
	560	35 × 50	2.60	0.25	0.592	1.50	LV-561M2W--A3550

2. LVG Series

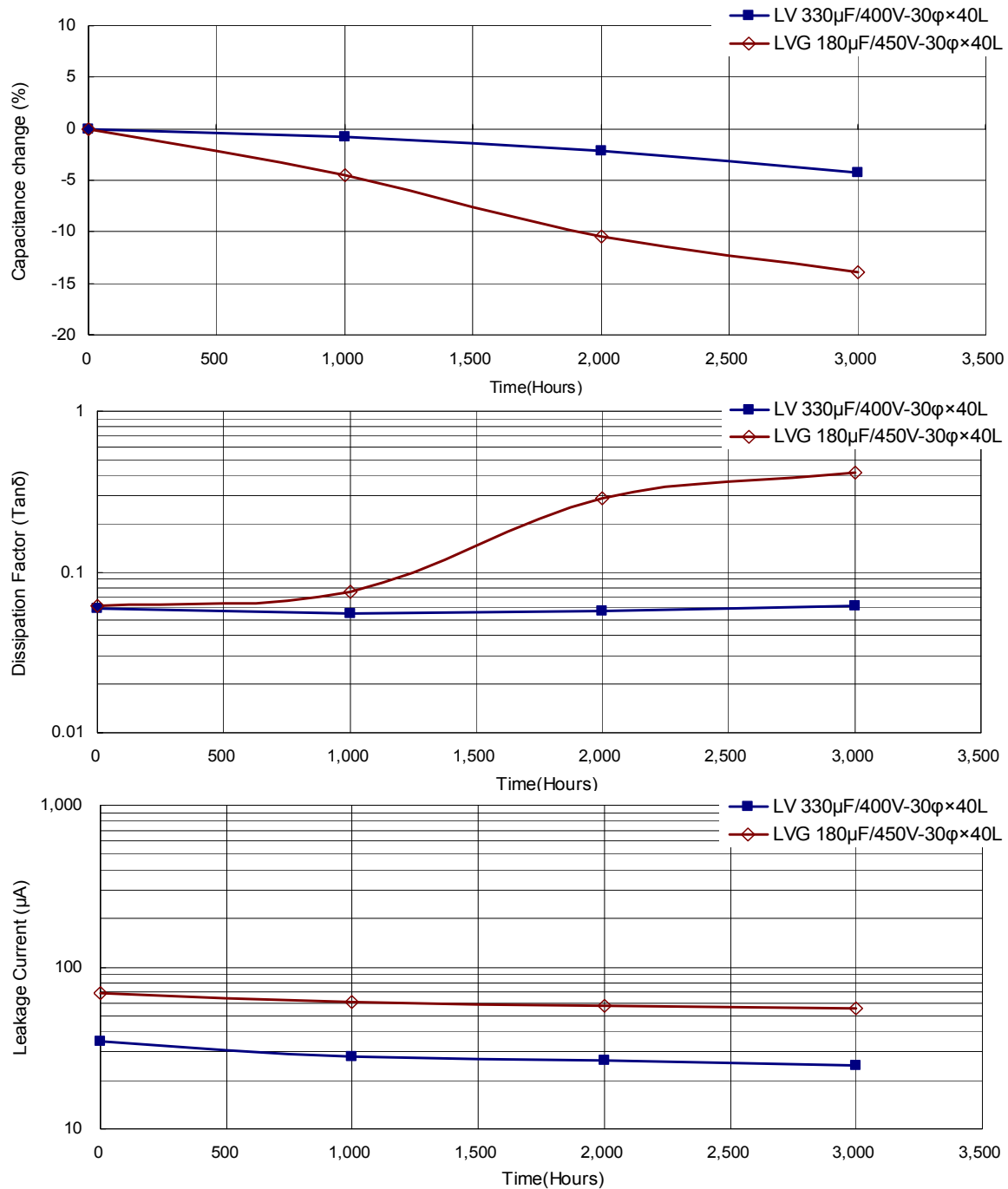
Working Voltage V. DC	Capacitance 120Hz, 20°C μF	φ D×L mm	Ripple Current 120 Hz, 105°C A/rms	Tan δ at 120Hz, 20°C	ESR 120Hz, 20°C Ω	LC 5 minutes mA	Part Number
400	180	35 × 25	0.9	0.25	1.843	0.80	LVG181M2G--A3525
	330	35 × 30	1.08	0.25	1.005	1.09	LVG331M2G--A3530
	390	35 × 35	1.12	0.25	0.851	1.18	LVG391M2G--A3535
	470	35 × 35	1.18	0.25	0.706	1.30	LVG471M2G--A3535
	560	35 × 40	1.27	0.25	0.592	1.42	LVG561M2G--A3540
	680	35 × 45	1.62	0.25	0.488	1.50	LVG681M2G--A3545
450	330	35 × 50	1.58	0.25	1.005	1.16	LVG331M2W--A3550
	120	35 × 25	0.72	0.25	2.765	0.70	LVG121M2W--A3525
	150	35 × 30	0.86	0.25	2.212	0.78	LVG151M2W--A3530
	180	35 × 35	1.00	0.25	1.843	0.85	LVG181M2W--A3535
	220	35 × 35	1.11	0.25	1.508	0.94	LVG221M2W--A3535
	270	35 × 45	1.36	0.25	1.229	1.05	LVG271M2W--A3545

Part Numbering System

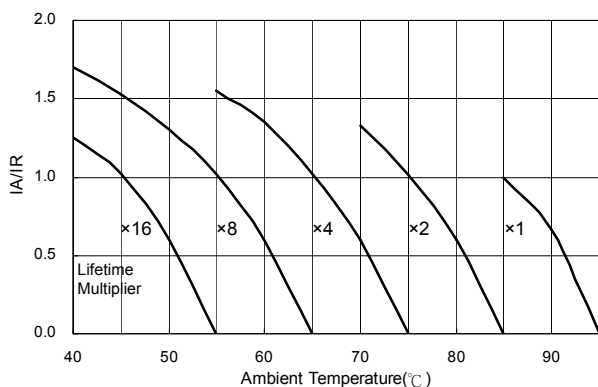
LVG series	100μF	±20%	400V		4.0±0.5mm	22 ϕ ×30L	Pb-free Terminal + PVC Sleeve
<u>LVG</u>	<u>101</u>	<u>M</u>	<u>2G</u>	<u>--</u>	<u>A</u>	<u>2230</u>	
Series name	Capacitance	Capacitance tolerance	Rated voltage	Terminal type	Terminal length	Case size	Terminal and Sleeve Type
Example:			Example:	Example:		Example:	
Cap.	Symbol	M = ±20% K = ±10%	WV	Symbol	“-”: 6.3±1.0 mm	ϕ D×L	Code
56	560		400	2G		22×30	2230
220	221		450	2W		25×25	2525
470	471					30×40	3040

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

Typical Endurance Curves



Useful Life Chart LV Series



IA: Actual ripple current IR: Rated ripple current

LVG Series

