



## LVA Series

- Designed for automotive application (including On Board Charger) by high vibration resistance structure.
- Endurance with ripple current : 5,000 hours at 105°C
- Rated voltage range : 450V<sub>dc</sub>, Capacitance range : 150 to 890μF
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.



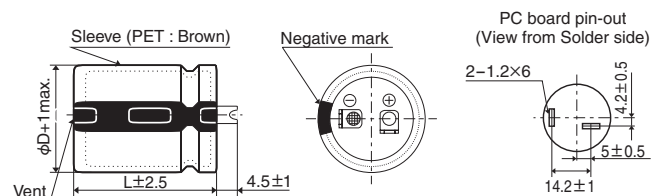
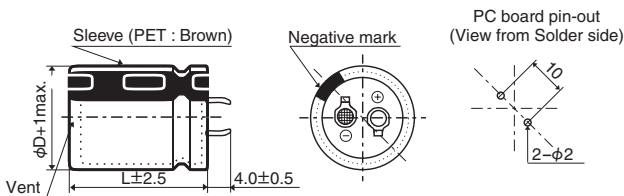
### ◆ SPECIFICATIONS

Items	Characteristics	
<b>Category</b>	-40 to +105°C	
<b>Temperature Range</b>		
<b>Rated Voltage Range</b>	450V <sub>dc</sub>	
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)	
<b>Leakage Current</b>	I ≤ 3/CV Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)	
<b>Dissipation Factor (tan δ)</b>	Rated voltage (V <sub>dc</sub> )	450V
	tan δ (Max.)	0.20 (at 20°C, 120Hz)
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	450V
	Z(-25°C)/Z(+20°C)	8 (at 120Hz)
<b>Endurance</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 5,000 hours at 105°C.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤ 200% of the initial specified value
	Leakage current	≤ The initial specified value
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.	
	Capacitance change	≤ ±15% of the initial value
	D.F. (tan δ)	≤ 150% of the initial specified value
	Leakage current	≤ The initial specified value
<b>Vibration</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to vibration test (vibration profile shown below) at room temperature (15 to 35°C).	
	Capacitance change	≤ ±5% of the initial value
	D.F. (tan δ)	≤ The initial specified value
	Leakage current	≤ The initial specified value
	Vibration profile	
	Vibration frequency range	10 to 2,000Hz
	Acceleration	49m/s <sup>2</sup> (5G)
	Sweep rate	10 to 2,000 to 10Hz 20 minutes
	Direction and period of motion	4 hours in each of 3 mutually perpendicular directions (total of 12 hours)
	Fixation	Securely attach the main body using a fixing tool. Please contact us for details.

### ◆ DIMENSIONS [mm]

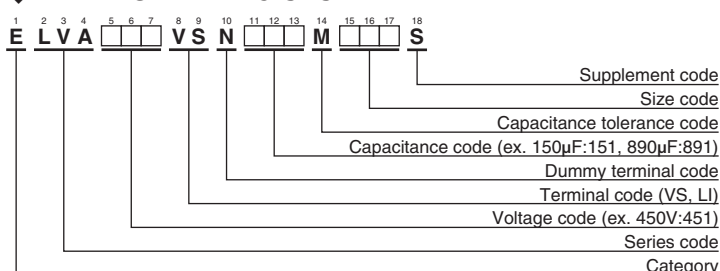
● Terminal Code : VS (φ25.4 to φ35) : Standard

● Terminal Code : LI (φ30, φ35)



The standard design has no plastic disc.

### ◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (snap-in type)"



## LVA Series

### ◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.
450	150	25.4 × 25	0.20	0.93	ELVA451VSN151MQ25S	450	410	30 × 40	0.20	1.67	ELVA451VSN411MR40S
	190	25.4 × 30	0.20	1.07	ELVA451VSN191MQ30S		440	35 × 35	0.20	1.64	ELVA451VSN441MA35S
	210	30 × 25	0.20	1.13	ELVA451VSN211MR25S		450	25.4 × 60	0.20	1.91	ELVA451VSN451MQ60S
	230	25.4 × 35	0.20	1.23	ELVA451VSN231MQ35S		470	30 × 45	0.20	1.84	ELVA451VSN471MR45S
	260	35 × 25	0.20	1.22	ELVA451VSN261MA25S		530	35 × 40	0.20	1.86	ELVA451VSN531MA40S
	280	25.4 × 40	0.20	1.39	ELVA451VSN281MQ40S		540	30 × 50	0.20	2.00	ELVA451VSN541MR50S
	280	30 × 30	0.20	1.31	ELVA451VSN281MR30S		600	30 × 55	0.20	2.15	ELVA451VSN601MR55S
	320	25.4 × 45	0.20	1.51	ELVA451VSN321MQ45S		620	35 × 45	0.20	2.06	ELVA451VSN621MA45S
	340	30 × 35	0.20	1.48	ELVA451VSN341MR35S		660	30 × 60	0.20	2.30	ELVA451VSN661MR60S
	350	35 × 30	0.20	1.44	ELVA451VSN351MA30S		710	35 × 50	0.20	2.25	ELVA451VSN711MA50S
	360	25.4 × 50	0.20	1.63	ELVA451VSN361MQ50S		800	35 × 55	0.20	2.44	ELVA451VSN801MA55S
	410	25.4 × 55	0.20	1.79	ELVA451VSN411MQ55S		890	35 × 60	0.20	2.62	ELVA451VSN891MA60S

### ◆RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V	0.77	1.00	1.16	1.30	1.41	1.43

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.  
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.
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- We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.  
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
- We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.  
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

[Standardization](#)

[Available Items by Manufacturing Locations](#)

[Environmental Measures](#)

[Technical Note](#)

[Precautions and Guidelines](#)

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[Available Terminals for Snap-in and Screw Mount Type](#)