

LVB Series

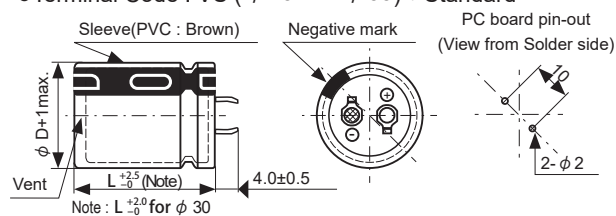
- LVA series with higher capacitance and higher ripple current
- Endurance with ripple current : 5,000 hours at 105°C.
- Rated voltage range : 450 to 500V, Capacitance range : 150 to 790μF
- Designed for automotive application (including On Board Charger) by high vibration resistance structure.
- Non solvent resistant type
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.
- The logo printed on the sleeve will be changed.

SPECIFICATION

Items	Characteristics	
Category	-40 to +105°C	
Temperature Range		
Rated Voltage Range	450 to 500V _{dc}	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	$I \leq 3\sqrt{CV}$ Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20°C after 5 minutes)	
Dissipation Factor (tan δ)	Rated voltage (V _{dc})	450 to 500V
	tan δ (Max.)	0.20 (at 20°C, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	450 to 500V
	Z(-25°C)/Z(+20°C)	8 (at 120Hz)
Endurance	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
Shelf Life	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
Vibration	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 ² (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.	

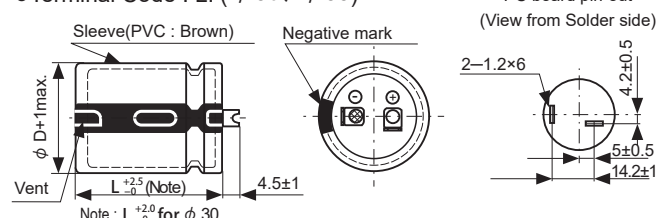
DIMENSIONS [mm]

- Terminal Code : VS (φ 25.4 to φ 35) : Standard

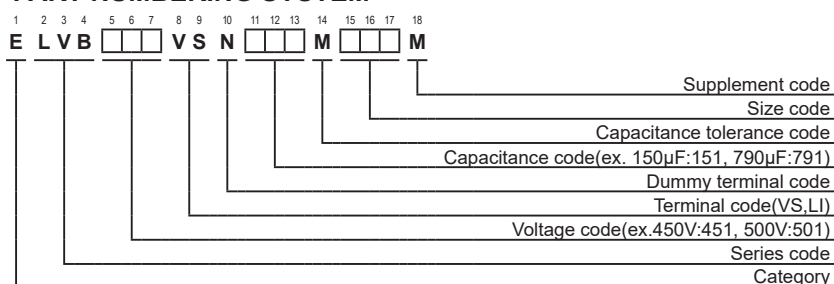


The standard design has no plastic disc.

- Terminal Code : LI (φ 30、φ 35)



PART NUMBERING SYSTEM



Product specifications in this bulletin are subject to change without notice. Request our product specifications before purchase and/or use. Please use our products based on the information contained in this bulletin and product specifications. Please contact us for mass production schedule.

LVB Series

◆ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φ D×L(mm)	tan δ	Rated ripple current (Arms/ 105°C, 120Hz)	Part No.
450	210	25.4×30	0.20	1.40	ELVB451VSN211MQ30M	475	360	25.4×55	0.20	1.86	ELVB4H1VSN361MQ55M
	260	25.4×35	0.20	1.63	ELVB451VSN261MQ35M		380	35×35	0.20	1.93	ELVB4H1VSN381MA35M
	270	30×30	0.20	1.72	ELVB451VSN271MR30M		390	30×45	0.20	2.10	ELVB4H1VSN391MR45M
	310	25.4×40	0.20	1.81	ELVB451VSN311MQ40M		400	25.4×60	0.20	2.00	ELVB4H1VSN401MQ60M
	340	30×35	0.20	1.97	ELVB451VSN341MR35M		440	30×50	0.20	2.28	ELVB4H1VSN441MR50M
	360	25.4×45	0.20	1.99	ELVB451VSN361MQ45M		460	35×40	0.20	2.18	ELVB4H1VSN461MA40M
	380	35×30	0.20	1.97	ELVB451VSN381MA30M		500	30×55	0.20	2.48	ELVB4H1VSN501MR55M
	410	25.4×50	0.20	2.16	ELVB451VSN411MQ50M		550	35×45	0.20	2.44	ELVB4H1VSN551MA45M
	410	30×40	0.20	2.05	ELVB451VSN411MR40M		630	35×50	0.20	2.67	ELVB4H1VSN631MA50M
	460	25.4×55	0.20	2.14	ELVB451VSN461MQ55M	500	150	25.4×30	0.20	1.06	ELVB501VSN151MQ30M
	490	30×45	0.20	2.29	ELVB451VSN491MR45M		180	25.4×35	0.20	1.21	ELVB501VSN181MQ35M
	490	35×35	0.20	2.07	ELVB451VSN491MA35M		200	30×30	0.20	1.40	ELVB501VSN201MR30M
	510	25.4×60	0.20	2.30	ELVB451VSN511MQ60M		220	25.4×40	0.20	1.36	ELVB501VSN221MQ40M
	560	30×50	0.20	2.50	ELVB451VSN561MR50M		250	30×35	0.20	1.61	ELVB501VSN251MR35M
	590	35×40	0.20	2.33	ELVB451VSN591MA40M		260	25.4×45	0.20	1.51	ELVB501VSN261MQ45M
	630	30×55	0.20	2.70	ELVB451VSN631MR55M		280	35×30	0.20	1.61	ELVB501VSN281MA30M
	690	35×45	0.20	2.59	ELVB451VSN691MA45M		290	25.4×50	0.20	1.62	ELVB501VSN291MQ50M
	790	35×50	0.20	2.83	ELVB451VSN791MA50M		300	30×40	0.20	1.80	ELVB501VSN301MR40M
	170	25.4×30	0.20	1.13	ELVB4H1VSN171MQ30M		330	25.4×55	0.20	1.78	ELVB501VSN331MQ55M
475	210	25.4×35	0.20	1.31	ELVB4H1VSN211MQ35M		350	35×35	0.20	1.85	ELVB501VSN351MA35M
	210	30×30	0.20	1.44	ELVB4H1VSN211MR30M		360	25.4×60	0.20	1.90	ELVB501VSN361MQ60M
	250	25.4×40	0.20	1.45	ELVB4H1VSN251MQ40M		360	30×45	0.20	2.02	ELVB501VSN361MR45M
	270	30×35	0.20	1.67	ELVB4H1VSN271MR35M		410	30×50	0.20	2.20	ELVB501VSN411MR50M
	280	25.4×45	0.20	1.57	ELVB4H1VSN281MQ45M		430	35×40	0.20	2.11	ELVB501VSN431MA40M
	300	35×30	0.20	1.67	ELVB4H1VSN301MA30M		460	30×55	0.20	2.38	ELVB501VSN461MR55M
	330	25.4×50	0.20	1.73	ELVB4H1VSN331MQ50M		500	35×45	0.20	2.33	ELVB501VSN501MA45M
	330	30×40	0.20	1.89	ELVB4H1VSN331MR40M		580	35×50	0.20	2.57	ELVB501VSN581MA50M

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V _{dc}	0.77	1.00	1.10	1.21	1.32	1.33
475、500V _{dc}	0.77	1.00	1.11	1.20	1.25	1.33

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current.