

ELHS4H1VSN181MA25S Datasheet



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DiGi Electronics Part Number	ELHS4H1VSN181MA25S-DG
Manufacturer	Chemi-Con
Manufacturer Product Number	ELHS4H1VSN181MA25S
Description	CAP ALUM 180UF 20% 475V SNAP
Detailed Description	180 μ F 475 V Aluminum Electrolytic Capacitors Radial, Can - Snap-In 5000 Hrs @ 105°C

This model ELHS4H1VSN181MA25S is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

ELHS4H1VSN181MA25S

Series:

LHS

Capacitance:

180 μ F

Voltage - Rated:

475 V

Lifetime @ Temp.:

5000 Hrs @ 105°C

Polarization:

Polar

Applications:

General Purpose

Ripple Current @ High Frequency:

1.5444 A @ 50 kHz

Size / Dimension:

1.378" Dia (35.00mm)

Surface Mount Land Size:

-

Package / Case:

Radial, Can - Snap-In

Manufacturer:

Chemi-Con

Product Status:

Active

Tolerance:

\pm 20%

ESR (Equivalent Series Resistance):

-

Operating Temperature:

-40°C ~ 105°C

Ratings:

-

Ripple Current @ Low Frequency:

1.08 A @ 120 Hz

Lead Spacing:

0.394" (10.00mm)

Height - Seated (Max):

1.083" (27.50mm)

Mounting Type:

Through Hole

Environmental & Export classification

RoHS Status:

RoHS Compliant

REACH Status:

REACH Unaffected

HTSUS:

8532.22.0040

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

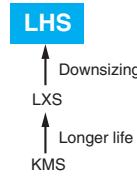


LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

Long life snap-ins, 105°C

LHS Series

- The lower temperature range of the category temperature range has been expanded.
- For solar power generation
- Endurance with ripple current : 5,000 hours at 105°C
- Rated voltage range : 450 to 500V
- For inverter control, switching power supplies
- Non solvent resistant type
- RoHS2 Compliant



500V Lineup!

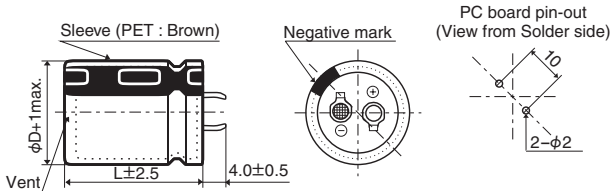


SPECIFICATIONS

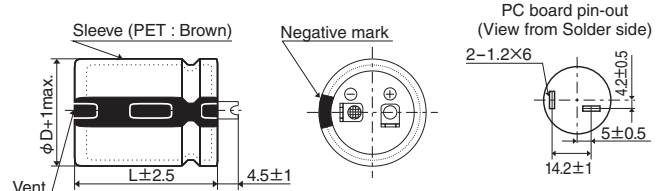
Items	Characteristics	
Category Temperature Range	-40 to +105°C	
Rated Voltage Range	450 to 500V _{dc}	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	I ≤ 3√CV Where, I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V) (at 20°C after 5 minutes)	
Dissipation 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 (475, 500V _{dc} : ≤ 250%)
	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

DIMENSIONS [mm]

● Terminal Code : VS (φ22 to φ35) : Standard

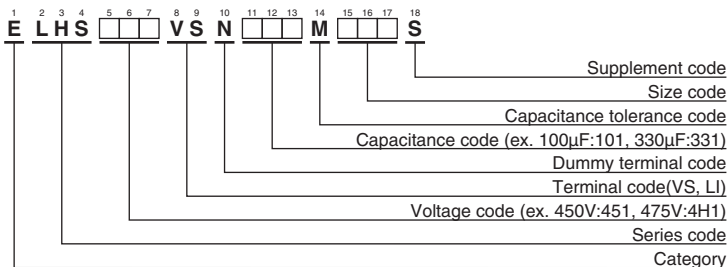


● Terminal Code : LI (φ30, φ35)



The standard design has no plastic disc.

PART NUMBERING SYSTEM



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



LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

Long life snap-ins, 105°C

LHS Series

◆ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/105°C, 120Hz)	Part No.	
450	100	22 × 25	0.20	0.71	ELHS451VSN101MP25S	475	150	30 × 25	0.20	1.01	ELHS4H1VSN151MR25S	
	120	22 × 30	0.20	0.81	ELHS451VSN121MP30S		180	30 × 30	0.20	1.11	ELHS4H1VSN181MR30S	
	150	22 × 35	0.20	0.93	ELHS451VSN151MP35S		180	35 × 25	0.20	1.08	ELHS4H1VSN181MA25S	
	150	25.4 × 25	0.20	0.93	ELHS451VSN151MQ25S		220	30 × 35	0.20	1.26	ELHS4H1VSN221MR35S	
	180	22 × 40	0.20	1.04	ELHS451VSN181MP40S		270	30 × 40	0.20	1.44	ELHS4H1VSN271MR40S	
	180	25.4 × 30	0.20	1.05	ELHS451VSN181MQ30S		270	35 × 30	0.20	1.35	ELHS4H1VSN271MA30S	
	220	22 × 45	0.20	1.17	ELHS451VSN221MP45S		330	30 × 45	0.20	1.63	ELHS4H1VSN331MR45S	
	220	25.4 × 35	0.20	1.21	ELHS451VSN221MQ35S		330	35 × 35	0.20	1.51	ELHS4H1VSN331MA35S	
	220	30 × 25	0.20	1.15	ELHS451VSN221MR25S		390	30 × 50	0.20	1.80	ELHS4H1VSN391MR50S	
	270	22 × 50	0.20	1.33	ELHS451VSN271MP50S		390	35 × 40	0.20	1.70	ELHS4H1VSN391MA40S	
	270	25.4 × 40	0.20	1.36	ELHS451VSN271MQ40S		470	30 × 60	0.20	2.05	ELHS4H1VSN471MR60S	
	270	30 × 30	0.20	1.29	ELHS451VSN271MR30S		470	35 × 45	0.20	1.91	ELHS4H1VSN471MA45S	
	270	35 × 25	0.20	1.25	ELHS451VSN271MA25S		470	35 × 50	0.20	1.95	ELHS4H1VSN471MA50S	
	330	22 × 60	0.20	1.54	ELHS451VSN331MP60S		560	35 × 60	0.20	2.21	ELHS4H1VSN561MA60S	
	330	25.4 × 45	0.20	1.54	ELHS451VSN331MQ45S		500	120	30 × 25	0.20	0.90	ELHS501VSN121MR25S
	330	25.4 × 50	0.20	1.56	ELHS451VSN331MQ50S			150	30 × 30	0.20	1.02	ELHS501VSN151MR30S
	330	30 × 35	0.20	1.46	ELHS451VSN331MR35S			150	35 × 25	0.20	0.99	ELHS501VSN151MA25S
	330	35 × 30	0.20	1.41	ELHS451VSN331MA30S			180	30 × 35	0.20	1.14	ELHS501VSN181MR35S
	390	25.4 × 60	0.20	1.74	ELHS451VSN391MQ60S			220	30 × 40	0.20	1.30	ELHS501VSN221MR40S
	390	30 × 40	0.20	1.63	ELHS451VSN391MR40S			220	35 × 30	0.20	1.22	ELHS501VSN221MA30S
	470	30 × 45	0.20	1.84	ELHS451VSN471MR45S			270	30 × 45	0.20	1.47	ELHS501VSN271MR45S
	470	30 × 50	0.20	1.87	ELHS451VSN471MR50S			270	35 × 35	0.20	1.37	ELHS501VSN271MA35S
	470	35 × 35	0.20	1.71	ELHS451VSN471MA35S			330	30 × 50	0.20	1.66	ELHS501VSN331MR50S
	560	35 × 40	0.20	1.95	ELHS451VSN561MA40S			330	35 × 40	0.20	1.57	ELHS501VSN331MA40S
	560	35 × 45	0.20	1.99	ELHS451VSN561MA45S			390	30 × 60	0.20	1.87	ELHS501VSN391MR60S
	680	30 × 60	0.20	2.33	ELHS451VSN681MR60S			390	35 × 45	0.20	1.74	ELHS501VSN391MA45S
	680	35 × 50	0.20	2.22	ELHS451VSN681MA50S		470	35 × 50	0.20	1.95	ELHS501VSN471MA50S	
	820	35 × 60	0.20	2.52	ELHS451VSN821MA60S		560	35 × 60	0.20	2.21	ELHS501VSN561MA60S	

◆ RATED RIPPLE CURRENT MULTIPLIERS

● Frequency Multipliers

Frequency(Hz)	50	120	300	1k	10k	50k
450V _{dc}	0.77	1.00	1.16	1.30	1.41	1.43
475, 500V _{dc}	0.70	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.
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- 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.
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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](#)

[Recommended Soldering Conditions](#)

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

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