

# ALUMINUM ELECTROLYTIC 160V to 450V

## NEVH, NEHH SERIES

### SUBMINIATURE HIGH VOLTAGE (NEVH: Radial Lead, NEHH: Axial Leads)

The NEVH and NEHH series subminiature aluminum electrolytic capacitors are ideal for polarized capacitor applications requiring small size, high capacitance, high voltage, low cost, and dependability over broad temperature ranges.

### RATINGS

**Capacitance Range:** 1.0 $\mu$ f to 470 $\mu$ f

**Tolerance:** -10%, +75%

**Voltage Range:** 160V to 450V

### PERFORMANCE SPECIFICATIONS

#### Operating Temperature Range:

- For 160V and 250V:  
-40°C to +85°C (-40°F to +185°F)
- For 350V and 450V:  
-25°C to +85°C (-13°F to +185°F)

**Leakage Current:**  $I \leq 0.02CV + 100\mu A$  (measured after 3 minutes of applied voltage)

I = Leakage Current ( $\mu A$ )

C = Nominal Capacitance ( $\mu f$ )

V = Rated Voltage (V)

**Capacitance Tolerance (M):** at +20°C (+68°F), 120Hz

Capacitance Values through 4.7 $\mu$ f -10% to +75%

Capacitance Values above 4.7 $\mu$ f -10% to +50%

**Dissipation Factor:** at +20°C (+68°F), 120Hz

Rated Voltage	160, 250, and 350	450
1.0 $\mu$ f to 470 $\mu$ f	0.20	0.25

**Impedance Ratio at Low Temperature:** 120Hz

Comparison Z WV	160-250	350	450
Z @ -25°C (-13°F) Z @ +20°C (+68°F)	2	2	2
Z @ -40°C (-40°F) Z @ +20°C (+68°F)	4	-	-

#### Surge Voltage:

DC Rated Voltage	160	250	350	450
Surge Voltage	200	300	400	500

**Load Life:** 1000  $\pm$ 12Hrs @ +85°C (+185°F),  
at rated voltage

Leakage Current: Within values specified above

Dissipation Factor: Within  $\pm$ 200% of specified value

Capacitance Change Max: See Table

Rated Voltage	Capacitance Change Max
160V to 450V	Within 20% of the initial value

**Shelf Life:** 1000 Hrs @ +85°C (+185°F),  
no voltage applied

Leakage Current: Within  $\pm$ 200% of specified value

Dissipation Factor: Within  $\pm$ 150% of specified value

Capacitance Change Max: Within  $\pm$ 20% of initial value

### MECHANICAL SPECIFICATIONS

#### Lead Solderability:

Meets the requirements of MIL-STD 202, Method 208

#### Marking:

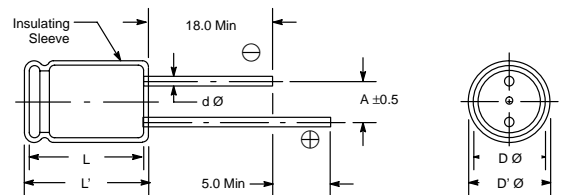
Consists of series type, nominal capacitance, rated voltage, temperature range, anode and/or cathode identification, vendor identification.

#### Recommended Cleaning Solvents:

Methanol, isopropanol ethanol, isobutanol, petroleum ether, propanol and/or commercial detergents. Halogenated hydrocarbon cleaning agents such as Freon (MF, TF, or TC), trichloroethylene, trichloroethane, or methylchloride are not recommended as they may damage the capacitor.

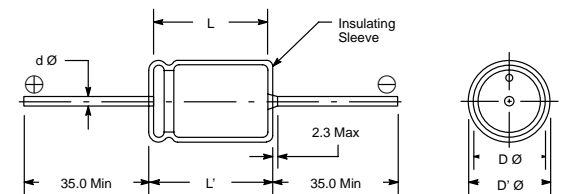
### CASE SIZE AND DIMENSIONS:

#### NEVH SERIES



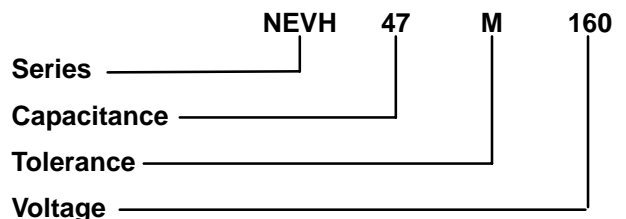
$$D' \text{ } \varnothing = D \text{ } \varnothing + 0.5 \text{ Max} \quad L' = L + 1.0 \text{ Max at } D \text{ } \varnothing \leq 8.0 \quad L' = L + 2.0 \text{ Max at } D \text{ } \varnothing \geq 10.0$$

#### NEHH SERIES (Insulating Bar = Negative)



$$D' \text{ } \varnothing = D \text{ } \varnothing + 0.5 \text{ Max} \quad L' = L + 1.0 \text{ Max at } D \text{ } \varnothing \leq 8.0 \quad L' = L + 2.0 \text{ Max at } D \text{ } \varnothing \geq 10.0$$

### ORDERING INFORMATION



# ALUMINUM ELECTROLYTIC 160V to 450V

## NEVH, NEHH SERIES

### NEVH Series (Radial Type) Dimensions: Diameter (D Ø) x Length (L): mm

Cap (µf) \ WV	160	250	350	450
1.0	6.3 x 11	6.3 x 11	8 x 11.5	10 x 12.5
2.2	6.3 x 11	8 x 11.5	10 x 12.5	10 x 16
3.3	8 x 11.5	10 x 12.5	10 x 16	10 x 20
4.7	8 x 11.5	10 x 12.5	10 x 16	13 x 20
10	10 x 12.5	10 x 20	13 x 21	13 x 25
22	10 x 20	13 x 25	13 x 25	16 x 31.5
33	13 x 21	13 x 25	16 x 31.5	18 x 35.5
47	13 x 25	16 x 25	18 x 36	22 x 35
100	16 x 25	18 x 36	22 x 35	25 x 40
220	18 x 35			
330	22 x 35			
470	22 x 40			

\* These dimensions are for reference only, please consult the factory for actual size.

### NEVH Series (Radial Type) Mechanical Specifications: mm

Outside Diameter (D Ø)	6.3	8	10	13	16	18	22	25
Lead Spacing (A)	2.5	3.5	5	5	7.5	7.5	10	12.5
Lead Diameter (d Ø)	0.5	0.6	0.6	0.6	0.8	0.8	0.8	1.0

\* These dimensions are for reference only, please consult the factory for actual size.

### NEHH Series (Axial Type) Dimensions: Diameter (D Ø) x Length (L): mm

Cap (µf) \ WV	160	250	350	450
1.0	6.3 x 16	8 x 16	8 x 16	10 x 20
2.2	8 x 16	8 x 20	10 x 20	10 x 20
3.3	8 x 16	10 x 20	10 x 20	10 x 20
4.7	8 x 20	10 x 20	10 x 20	13 x 25
10	10 x 25	10 x 20	13 x 25	13 x 30
22	10 x 20	13 x 25	13 x 30	16 x 30
33	13 x 25	13 x 30	16 x 30	16 x 40
47	13 x 30	16 x 30	16 x 40	16 x 40
100	16 x 30	16 x 40	18 x 40	22 x 40
220	22 x 40			
330	25 x 52			
470	22 x 52			

\* These dimensions are for reference only, please consult the factory for actual size.

### NEHH Series (Axial Type) Mechanical Specifications: mm

Outside Diameter (D Ø)	6.3	8	10	13	16	18	22	25
Lead Diameter (d Ø)	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8

\* These dimensions are for reference only, please consult the factory for actual size.