

# +105°C ALUMINUM ELECTROLYTIC

## VHT SERIES

### SUBMINIATURE (Radial Lead, 105°C Max)

The NTE VHT series of aluminum electrolytic capacitors are designed for use in automotive, commercial, and industrial applications. These high temperature, radial lead capacitors are especially suitable for applications that require extended life and higher temperature operation.

### RATINGS

**Capacitance Range:** 0.1µf to 10000µf

**Tolerance:** ±20%

**Voltage Range:** 6.3V to 450 Volts

### PERFORMANCE SPECIFICATIONS

#### Operating Temperature Range:

6.3V to 63V: -40 °C to +105°C (-40 °F to +220.9°F)

160V to 450V: -25 °C to +105°C (-13 °F to +220.9°F)

#### Leakage Current:

6.3V to 100V: ≤ 0.01CV (+3µA)

160V to 250V: ≤ 0.03CV (+15µA)

350V to 450V: ≤ 0.03CV (+10µA)

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

#### High Temperature Load Test:

1000 Hrs @ +105°C (+220.9°F) and rated voltage

#### Ripple Current:

The ripple current multipliers (See Table) adjust the current to make the capacitors operating temperature the same for different ambient temperatures and ripple frequencies.

Temperature	45°C	55°C	65°C	75°C	85°C	95°C	105°C
Multiplier	1.5	1.46	1.32	1.17	1.0	0.79	0.5

**Load Life:** 1000 Hrs @ +105°C (+220.9°F),  
no voltage applied

**Shelf Life:** 1000 Hrs @ +105°C (+220.9°F),  
no voltage applied

### MECHANICAL SPECIFICATIONS

#### Lead Solderability:

Meets the requirements of MIL-STD 202,  
Method 208

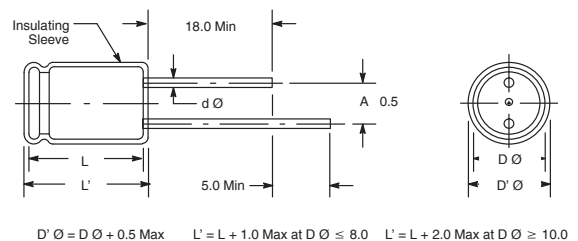
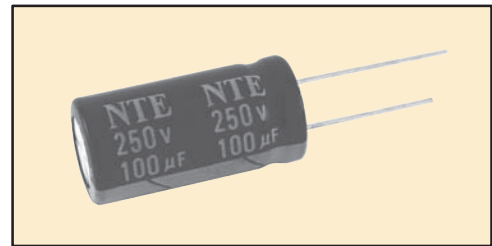
#### Marking:

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

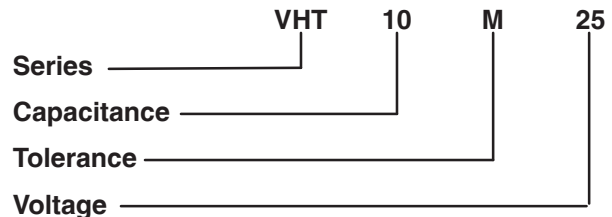
#### Recommended Cleaning Solvents:

Methanol, isopropanol ethanol, isobutanol, petro-  
leum ether, propanol and/or commercial deter-  
gents. Halogenated hydrocarbon cleaning  
agents such as Freon (MF, TF, or TC), trichloro-  
ethylene, trichloroethane, or methylchloride are  
not recommended as they may damage the ca-  
pacitor.

### CASE SIZE AND DIMENSIONS:



### ORDERING INFORMATION



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### VHT Series Dimensions: Diameter (D Ø) x Length (L): mm

Cap (µf) \ WV	6.3	10	16	25	35	50	63	100	160	250	350	450
0.1						5 x 11	5 x 11	5 x 11				
0.22						5 x 11	5 x 11	5 x 11				
0.33						5 x 11	5 x 11	5 x 11				
0.47						5 x 11	5 x 11	5 x 11	5 x 11	5 x 11		6 x 11
1.0						5 x 11	5 x 11	5 x 11	6 x 11	6 x 11	8 x 11	8 x 11
2.2						5 x 11	5 x 11	5 x 11	6 x 11	8 x 11.5	10 x 12	10 x 12
3.3						5 x 11	5 x 11	5 x 11	8 x 11.5	10 x 12.5	10 x 16	10 x 16
4.7				5 x 11	5 x 11	5 x 11	5 x 11	5 x 11	8 x 11.5	10 x 12.5	10 x 16	10 x 20
NEW 6.8						5 x 11	5 x 11	6 x 11	8 x 11	10 x 12	10 x 15	10 x 20
10			5 x 11	5 x 11	5 x 11	5 x 11	6 x 11	6 x 11	10 x 12.5	10 x 20	10 x 20	13 x 25
22			5 x 11	5 x 11	6 x 11	6 x 11	8 x 11.5	6 x 11	10 x 20	13 x 25	13 x 25	16 x 25
33		5 x 11	5 x 11	6 x 11	6 x 11	8 x 11.5	8 x 11.5	8 x 11	13 x 21	13 x 25	16 x 25	16 x 25
47		5 x 11	6 x 11	6 x 11	8 x 11.5	8 x 11.5	10 x 12.5	10 x 12	13 x 25	16 x 25	16 x 33	18 x 36
68		5 x 11		6 x 11		8 x 11		10 x 15	13 x 26	16 x 26	16 x 31	18 x 31
100		5 x 11	8 x 11.5	8 x 11.5	10 x 12.5	10 x 16	10 x 20	10 x 15	16 x 25	18 x 36	18 x 36	22 x 40
220	5 x 11	6 x 11	10 x 12.5	6 x 11	10 x 20	13 x 20	13 x 20	13 x 26	16 x 36	18 x 40		
330	6 x 11	8 x 11	10 x 16	10 x 20	13 x 20	13 x 20	13 x 25	16 x 26	18 x 32			
470	6 x 11	8 x 11	10 x 20	13 x 20	13 x 25	16 x 25	16 x 25	16 x 26	22 x 41			
NEW 560		8 x 11		10 x 15		13 x 21	13 x 21	16 x 36				
NEW 680	8 x 11	8 x 11	8 x 14	10 x 12		13 x 21	16 x 26	16 x 36				
NEW 820	8 x 11	10 x 12	10 x 15	10 x 15		13 x 26	16 x 26	19 x 32				
NEW 1000	8 x 11	10 x 16	13 x 25	16 x 25	16 x 25	16 x 25	18 x 31.5	18 x 41				
NEW 1500	10 x 15	10 x 17	10 x 20	13 x 21		16 x 26	18 x 36	22 x 42				
NEW 2200	10 x 17	10 x 20	16 x 25	16 x 31.5	18 x 31.5	16 x 32	18 x 36	25 x 45				
NEW 2700	10 x 20	13 x 21	13 x 21	16 x 31		18 x 36	22 x 42					
3300	10 x 20	13 x 20	16 x 31.5	18 x 31.5	16 x 32	18 x 40	22 x 41					
4700	10 x 25	16 x 25	18 x 31.5	16 x 32	18 x 36	20 x 40	25 x 44					
NEW 5600	13 x 26			18 x 36		25 x 42						
6800		16 x 31	16 x 32	18 x 36	22 x 36	25 x 44						
NEW 8200	16 x 26	16 x 31		18 x 36								
10000	16 x 31	16 x 36	18 x 36	22 x 41		25 x 42						
NEW 15000	16 x 36	18 x 36		22 x 42								

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

### VHT Mechanical Specs: Dimensions (mm)

Outside Diameter	D Ø	5.0	6.0	8.0	10.0	13.0	16.0	18.0	20.0	22.0
Lead Spacing	A	2.0	2.5	3.5	5.0		7.5		10	
Lead Wire	d Ø	0.5			0.6		0.65	0.8	2.0	

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