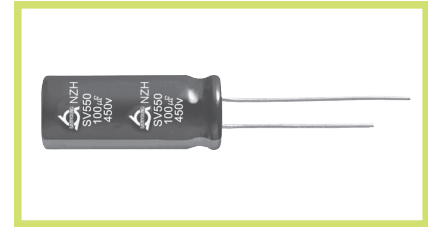


## NZH Series

• 105°C 2,000Hrs assured

- Non-solvent proof
- High ripple and High surge voltage
- For LED TV Power , SMPS
- **RoHS compliant.**
- **Halogen-free capacitors are also available.**

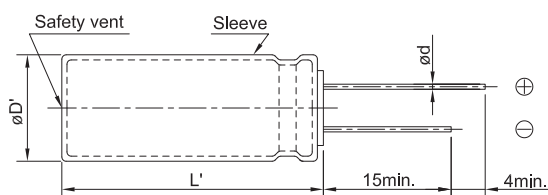


### SPECIFICATIONS

Item	Characteristics												
Rated Voltage	450 V <sub>DC</sub>												
Surge Voltage	550 V <sub>DC</sub>												
Operating Temperature Range	-25 ~ +105°C												
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)												
Leakage Current	<table border="1"> <thead> <tr> <th>CV</th> <th>Time</th> <th>After 1 minute</th> <th>After 5 minute</th> </tr> </thead> <tbody> <tr> <td>≤ 1000</td> <td></td> <td>I=0.1CV+40</td> <td>I=0.03CV+15</td> </tr> <tr> <td>&gt; 1000</td> <td></td> <td>I=0.04CV+100</td> <td>I=0.02CV+25</td> </tr> </tbody> </table>	CV	Time	After 1 minute	After 5 minute	≤ 1000		I=0.1CV+40	I=0.03CV+15	> 1000		I=0.04CV+100	I=0.02CV+25
	CV	Time	After 1 minute	After 5 minute									
≤ 1000		I=0.1CV+40	I=0.03CV+15										
> 1000		I=0.04CV+100	I=0.02CV+25										
Where, I : Max. Leakage current(µA) C : Nominal capacitance(µF) V : Rated voltage(V <sub>DC</sub> ) (at 20°C)													
Dissipation Factor(Tanδ)	<table border="1"> <tbody> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>450</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.24</td> </tr> </tbody> </table>	Rated Voltage(V <sub>DC</sub> )	450	Tanδ(Max.)	0.24								
	Rated Voltage(V <sub>DC</sub> )	450											
Tanδ(Max.)	0.24												
(at 20°C, 120Hz)													
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tbody> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>450</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>6</td> </tr> </tbody> </table>	Rated Voltage(V <sub>DC</sub> )	450	Z(-25°C)/Z(20°C)	6								
	Rated Voltage(V <sub>DC</sub> )	450											
Z(-25°C)/Z(20°C)	6												
(at 120Hz)													
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied for 2,000 hours at 105°C.												
	Capacitance change ≤ ±20 % of the initial value 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. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.												
	Capacitance change ≤ ±20 % of the initial value tan δ ≤ 200 % of the initial specified value Leakage current ≤ 500 % of the initial specified value												
Others	Satisfied characteristics KS C IEC 60384-4												

### DIMENSIONS OF NZH Series

Unit(mm)



Marking : DARK BLUE SLEEVE, SILVER INK

øD	16	18
ød	0.8	0.8
F	7.5	7.5
øD'	øD + 0.5 max.	
L'	L + 2.0 max.	

## RATINGS OF NZH Series

V <sub>DC</sub>	450	
Items μF	∅D×L(mm)	Rated Ripple Current (mA <sub>rms</sub> /150°C, 120Hz)
39	10 X 50	400
47	12.5 X 40	460
	16 X 25	460
56	12.5 X 50	550
	16 X 31.5	550
	18 X 25	550
68	12.5 X 50	690
	16 X 35.5	690
	18 X 31.5	690
82	12.5 X 60	750
	16 X 40	750
	18 X 31.5	750
100	16 X 45	800
	18 X 35.5	800
120	16 X 50	950
	18 X 40	950
150	16 X 60	1,300
	18 X 50	1,300

## RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap.(μF) Freq.(Hz)	120	1k	10k	50k	100k
47 ~ 150	1.00	1.25	1.50	1.75	2.00