

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 _{DC}															
Surge Voltage	550 V _{DC}															
Operating Temperature Range	-25 ~ +105°C															
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)															
Leakage Current	<table border="1"> <tr> <th>CV</th> <th>Time</th> <th>After 1 minute</th> <th>After 5 minutes</th> </tr> <tr> <td>≤ 1000</td> <td></td> <td>$I = 0.1CV + 40$</td> <td>$I = 0.03CV + 15$</td> </tr> <tr> <td>> 1000</td> <td></td> <td>$I = 0.04CV + 100$</td> <td>$I = 0.02CV + 25$</td> </tr> </table> <p>Where, I : Max. Leakage current(μA) C : Nominal capacitance(μF) V : Rated voltage(V_{DC}) (at 20°C)</p>				CV	Time	After 1 minute	After 5 minutes	≤ 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 minutes													
≤ 1000		$I = 0.1CV + 40$	$I = 0.03CV + 15$													
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Dissipation Factor(Tan δ)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td> <td>450</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.24</td> </tr> </table> <p>(at 20°C, 120Hz)</p>				Rated Voltage(V _{DC})	450	Tan δ (Max.)	0.24								
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Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td> <td>450</td> </tr> <tr> <td>$Z(-25^\circ C)/Z(20^\circ C)$</td> <td>6</td> </tr> </table> <p>(at 120Hz)</p>				Rated Voltage(V _{DC})	450	$Z(-25^\circ C)/Z(20^\circ C)$	6								
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Load Life	<p>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.</p> <p>Capacitance change $\leq \pm 20\%$ of the initial value $\tan \delta \leq 200\%$ of the initial specified value Leakage current \leq The initial specified value</p>															
Shelf Life	<p>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.</p> <p>Capacitance change $\leq \pm 20\%$ of the initial value $\tan \delta \leq 200\%$ of the initial specified value Leakage current $\leq 500\%$ of the initial specified value</p>															
Others	Satisfied characteristics KS C IEC 60384-4															

DIMENSIONS OF NZH Series

Unit(mm)

		Marking : DARK BLUE SLEEVE, SILVER INK				
ØD	8 10 12.5 16 18					
Ød	0.6 0.6 0.6 0.8 0.8					
F	3.5 5.0 5.0 7.5 7.5					
ØD'	$\varnothing D + 0.5$ max.					
L'	$L + 2.0$ max					
※ Ø16 x 60L, L' \leq L+3.0						



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

RATINGS OF NZH Series

V _{DC}	450	
Items μF	Ø D × L(mm)	Rated Ripple Current (mArms/105°C,120Hz)
18	8 X 50	240
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
18 ~ 150	1.00	1.25	1.50	1.75	2.00