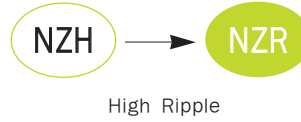


NZR Series

- 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.**

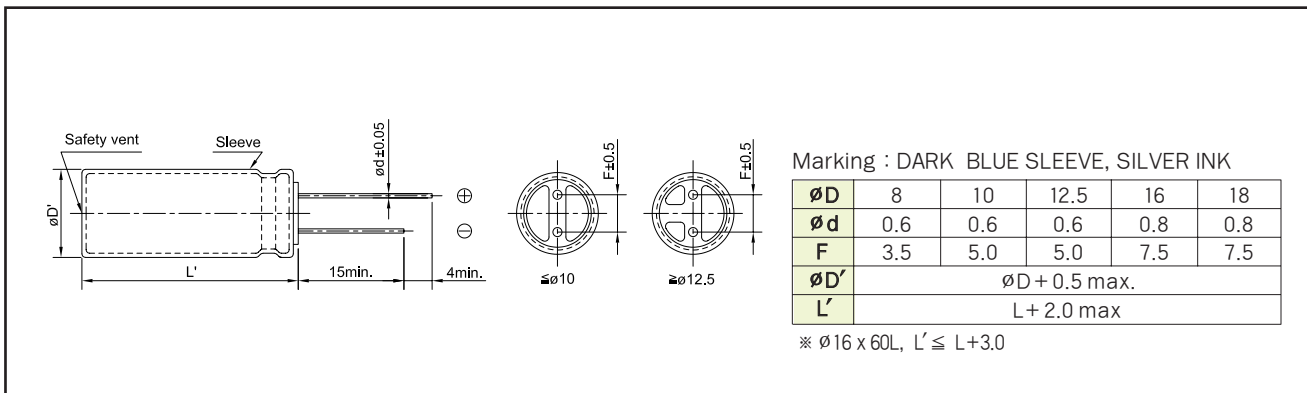


SPECIFICATIONS

Item	Characteristics											
Rated Voltage	450 V _{dc}											
Surge Voltage	550 V _{dc}											
Operating Temperature Range	-25 ~ +105°C											
Capacitance Tolerance	±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 minutes</th> </tr> </thead> <tbody> <tr> <td rowspan="2">≤ 1000</td> <td></td> <td>I=0.1CV+40</td> <td>I=0.03CV+15</td> </tr> <tr> <td></td> <td>I=0.04CV+100</td> <td>I=0.02CV+25</td> </tr> </tbody> </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		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									
		I=0.04CV+100	I=0.02CV+25									
Dissipation Factor(Tanδ)	<table border="1"> <tbody> <tr> <td>Rated Voltage(V_{dc})</td> <td>450</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.24</td> </tr> </tbody> </table> <p>(at 20°C, 120Hz)</p>	Rated Voltage(V _{dc})	450	Tanδ(Max.)	0.24							
Rated Voltage(V _{dc})	450											
Tanδ(Max.)	0.24											
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tbody> <tr> <td>Rated Voltage(V_{dc})</td> <td>450</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>6</td> </tr> </tbody> </table> <p>(at 120Hz)</p>	Rated Voltage(V _{dc})	450	Z(-25°C)/Z(20°C)	6							
Rated Voltage(V _{dc})	450											
Z(-25°C)/Z(20°C)	6											
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 ≤ ±20 % of the initial value tan δ ≤ 200 % of the initial specified value Leakage current ≤ 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 ≤ ±20 % of the initial value tan δ ≤ 200 % of the initial specified value Leakage current ≤ 500 % of the initial specified value</p>											
Others	Satisfied characteristics KS C IEC 60384-4											

DIMENSIONS OF NZR Series

Unit(mm)



RATINGS OF NZR Series

V _{dc}		450	
μF	Items	∅D×L(mm)	Rated Ripple Current (mA _{rms} /105°C, 120Hz)
23		8 X 50	300
39		10 X 50	450
51			480
62		10 X 60	570
68		12.5 X 50	750
		16 X 35.5	750
		18 X 31.5	750
82		12.5 X 60	800
		16 X 40	800
		18 X 31.5	800
100		16 X 45	900
		18 X 35.5	900
120		16 X 50	1,000
		18 X 40	1,000
150		16 X 60	1,400
		18 X 50	1,400

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap.(μF)	Freq.(Hz)	120	1k	10k	50k	100k
23 ~ 150		1.00	1.25	1.50	1.75	2.00