

NFS Series

● 105°C 5,000Hrs assured.

- Non-solvent proof
- High ripple and long life
- For SMPS , IP-Board , Adaptor
- RoHS compliant.
- Halogen-free capacitors are also available.

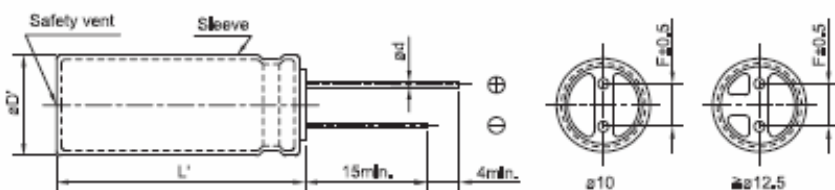


SPECCIFICATIONS

Iteam	Characteristics											
Rated Voltage Range	200 ~ 400 V _{DC}											
Operating Temperature Range	-40 ~ +105 °C											
Capacitance Tolerance	±20% (M) (at 20 °C, 120Hz)											
Leakage Current	<table border="1"> <thead> <tr> <th rowspan="2">C·V</th> <th colspan="2">Time</th> </tr> <tr> <th>After 1 minute</th> <th>After 5 minute</th> </tr> </thead> <tbody> <tr> <td>≤ 1000</td> <td>I = 0.1CV + 40</td> <td>I = 0.03CV + 15</td> </tr> <tr> <td>> 1000</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>	C·V	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
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Dissipation Factor (tan δ)	<table border="1"> <thead> <tr> <th>Rated Voltage(V_{DC})</th> <th>200 ~ 250</th> <th>350 ~ 400</th> </tr> </thead> <tbody> <tr> <td>Tanδ(Max.)</td> <td>0.20</td> <td>0.24</td> </tr> </tbody> </table> <p>(at 20 °C, 120Hz)</p>	Rated Voltage(V _{DC})	200 ~ 250	350 ~ 400	Tanδ(Max.)	0.20	0.24					
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Temperature Characteristics (Capacitance change ratio)	<table border="1"> <thead> <tr> <th>Rated Voltage(V_{DC})</th> <th>200 ~ 250</th> <th>350 ~ 400</th> </tr> </thead> <tbody> <tr> <td>Z(-25 °C) / Z(+20 °C)</td> <td>3</td> <td>5</td> </tr> <tr> <td>Z(-40 °C) / Z(+20 °C)</td> <td>6</td> <td>6</td> </tr> </tbody> </table> <p>(at 120Hz)</p>	Rated Voltage(V _{DC})	200 ~ 250	350 ~ 400	Z(-25 °C) / Z(+20 °C)	3	5	Z(-40 °C) / Z(+20 °C)	6	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 5,000 hours at 105 °C.</p> <p>Capacitance change ≤ ±20 % of the initial value</p> <p>tan δ ≤ 200 % of the initial specified value</p> <p>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 volage 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</p> <p>tan δ ≤ 200 % of the initial specified value</p> <p>Leakage current ≤ 500 % of the initial specified value</p>											
Others	Satisfied characteristics KS C IEC 60384-4											

* Please refer each approval sheet for detail specification.

DIMENSIONS OF NFS Series



Unit (mm)

Marking : DARK BROWN SLEEVE , SILVER INK

ΦD	8	10	12.5
Φd	0.6	0.6	0.6
F	3.5	5.0	5.0
ΦD'	ΦD + 0.5max.		
L'	L + 1.5max.	L + 2.0max.	



RATINGS OF NFS Series

WV(V _{DC})	Cap.(μ F)	Case size \varnothing D x L(mm)	Rated ripple current (mArms / 105 $^{\circ}$ C)				
			120Hz	1kHz	10kHz	50kHz	100kHz
200	22	10 x 20	184	440	495	523	550
	33	12.5 x 20	300	560	630	665	700
	47	12.5 x 20	340	780	878	926	975
	68	12.5 x 20	369	880	990	1045	1100
	68	12.5 x 25	436	1040	1170	1235	1300
250	22	10 x 20	200	440	495	523	550
	47	12.5 x 20	340	720	810	855	900
	82	12.5 x 30	510	1160	1305	1378	1450
350	10	8 x 20	90	210	270	285	300
	10	10 x 20	120	245	315	333	350
	22	12.5 x 20	225	520	585	618	650
	22	12.5 x 25	270	544	612	646	680
400	8.2	8 x 20	80	293	376	397	418
	10	10 x 20	110	301	387	409	430
	22	12.5 x 25	250	624	702	741	780