

NXE Series

• 105°C 3,000~4,000Hrs assured.

- Non-solvent proof.
- Ultra Low ESR, Long Life.
- For MAIN-Board, SMPS.
- RoHS compliant.
- Halogen-free capacitors are also available.



SPECIFICATIONS

Item	Characteristics												
Rated Voltage Range	6.3 ~ 35 V _{DC}												
Operating Temperature Range	-40 ~ + 105°C												
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)												
Leakage Current	I = 0.03CV(μA) or 4μA, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V _{DC}) (at 20°C, 2 minutes)												
Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> (at 20°C, 120Hz)	Rated Voltage(V _{DC})	6.3	10	16	25	35	Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12
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Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Z(-25°C) / Z(20°C)</td> <td>2</td> </tr> <tr> <td>Z(-40°C) / Z(20°C)</td> <td>3</td> </tr> </table> (at 120Hz)	Z(-25°C) / Z(20°C)	2	Z(-40°C) / Z(20°C)	3								
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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 (the peak voltage shall not exceed the rated voltage) at 105°C for the specified period of time.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>≤ ±25% of the initial value</td> </tr> <tr> <td>Tanδ</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table> <table border="1"> <tr> <td>∅D</td> <td>Life Time</td> </tr> <tr> <td>∅8</td> <td>3,000 hours</td> </tr> <tr> <td>∅10~</td> <td>4,000 hours</td> </tr> </table>	Capacitance change	≤ ±25% of the initial value	Tanδ	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value	∅D	Life Time	∅8	3,000 hours	∅10~	4,000 hours
Capacitance change	≤ ±25% of the initial value												
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Leakage current	≤ The initial specified value												
∅D	Life Time												
∅8	3,000 hours												
∅10~	4,000 hours												
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 ≤ ±25% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ 200% of the initial specified value</p>												
Others	Satisfied characteristics KS C IEC 60384-4												

DIMENSIONS OF NXE Series

Unit(mm)

Marking : DARK BROWN SLEEVE, SILVER INK

∅D	8	10	12.5
∅d	0.6	0.6	0.6
F	3.5	5.0	5.0
∅D'	∅D + 0.5 max.		
L'	L + 1.5 max.	L + 2.0 max.	

※ ∅10 x 12L, L' ≤ L + 1.5

RATINGS OF NXE series

Vdc		6.3			
μF	Items	ø D × L (mm)	Rated Ripple Current (mArms/105°C, 100kHz)	ESR	
				(Ω max./20°C, 100kHz)	(Ω max./-10°C, 100kHz)
820		8 × 11.5	1,140	0.036	0.11
1,200		8 × 15	1,490	0.028	0.085
1,800		8 × 20	1,870	0.019	0.057
1,500		10 × 12	1,540	0.030	0.091
1,500		10 × 12.5	1,540	0.030	0.091
1,800		10 × 16	2,000	0.019	0.057
2,200		10 × 20	2,550	0.013	0.039
3,300		10 × 25	2,800	0.012	0.036

Vdc		10			
μF	Items	ø D × L (mm)	Rated Ripple Current (mArms/105°C, 100kHz)	ESR	
				(Ω max./20°C, 100kHz)	(Ω max./-10°C, 100kHz)
680		8 × 11.5	1,140	0.036	0.11
1,000		8 × 15	1,490	0.028	0.085
1,500		8 × 20	1,870	0.019	0.057
1,000		10 × 12	1,540	0.030	0.091
1,000		10 × 12.5	1,540	0.030	0.091
1,200		10 × 16	2,000	0.019	0.057
1,500		10 × 16	2,000	0.019	0.057
1,800		10 × 20	2,550	0.013	0.039
2,200		10 × 25	2,800	0.012	0.036

Vdc		16			
μF	Items	ø D × L (mm)	Rated Ripple Current (mArms/105°C, 100kHz)	ESR	
				(Ω max./20°C, 100kHz)	(Ω max./-10°C, 100kHz)
470		8 × 11.5	1,140	0.036	0.11
680		8 × 15	1,490	0.028	0.085
1,000		8 × 20	1,870	0.019	0.057
680		10 × 12	1,540	0.030	0.091
680		10 × 12.5	1,540	0.030	0.091
1,000		10 × 16	2,000	0.019	0.057
1,500		10 × 20	2,550	0.013	0.039
1,800		10 × 25	2,800	0.012	0.036

Vdc		25			
μF	Items	ø D × L (mm)	Rated Ripple Current (mArms/105°C, 100kHz)	ESR	
				(Ω max./20°C, 100kHz)	(Ω max./-10°C, 100kHz)
220		8 × 11.5	1,140	0.036	0.11
390		8 × 15	1,490	0.028	0.085
560		8 × 20	1,870	0.019	0.057
470		10 × 12	1,540	0.030	0.091
470		10 × 12.5	1,540	0.030	0.091
680		10 × 16	2,000	0.019	0.057
820		10 × 20	2,550	0.013	0.039
1,000		10 × 25	2,800	0.012	0.036
1,200		12.5 × 20	3,000	0.014	0.042

Vdc		35			
μF	Items	ø D × L (mm)	Rated Ripple Current (mArms/105°C, 100kHz)	ESR	
				(Ω max./20°C, 100kHz)	(Ω max./-10°C, 100kHz)
150		8 × 11.5	1,140	0.036	0.11
270		8 × 15	1,490	0.028	0.085
390		8 × 20	1,870	0.019	0.057
330		10 × 12	1,540	0.030	0.091
330		10 × 12.5	1,540	0.030	0.091
470		10 × 16	2,000	0.019	0.057
560		10 × 20	2,550	0.013	0.039
680		10 × 25	2,800	0.012	0.036

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap.(μF)	Freq.(Hz)	120	1k	10k	50k	100k
150 ~ 560		0.50	0.85	0.94	0.96	1.00
680 ~ 1,800		0.60	0.87	0.95	0.97	1.00
2,200 ~ 3,300		0.75	0.90	0.95	0.97	1.00