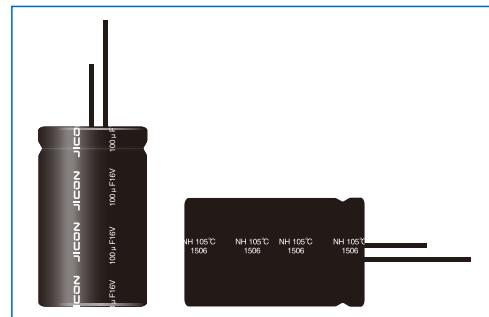


NH 系列 SERIES

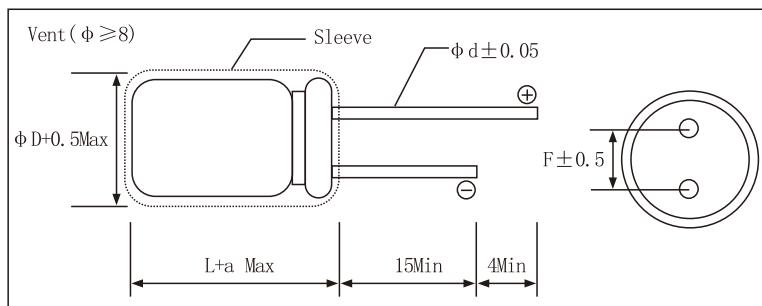
- 2000h at 105°C
- Wide temperature range
- No-polar



◆ SPECIFICATION

Items	Characteristics																																		
Operating Temperature Range (°C)	-40~+105°C																																		
Voltage range (V)	6.3~100V																																		
Capacitance Range (μF)	0.47~6800 μF																																		
Capacitance Tolerance	±20% (at 20°C, 120Hz)																																		
leakage current (μA)	$I_L = 0.03 CV$ or 10 (μA) whichever is greater. (After 2 minutes' application of rated voltage)																																		
Dissipation Factor (Tan δ)	<table border="1"> <thead> <tr> <th>WV (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Tan δ (max)</td> <td>0.24</td> <td>0.24</td> <td>0.20</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table> (at 20°C, 120Hz)								WV (V)	6.3	10	16	25	35	50	63	100	Tan δ (max)	0.24	0.24	0.20	0.20	0.16	0.14	0.12	0.10									
WV (V)	6.3	10	16	25	35	50	63	100																											
Tan δ (max)	0.24	0.24	0.20	0.20	0.16	0.14	0.12	0.10																											
Low Temperature Characteristics	<table border="1"> <thead> <tr> <th>Rated Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Impedance Ratio (MAX)</td> <td>Z-25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td></td> <td>Z-40°C/Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> (at 120Hz)								Rated Voltage (V)	6.3	10	16	25	35	50	63	100	Impedance Ratio (MAX)	Z-25°C/Z+20°C	4	3	2	2	2	2	2		Z-40°C/Z+20°C	10	8	6	4	3	3	3
Rated Voltage (V)	6.3	10	16	25	35	50	63	100																											
Impedance Ratio (MAX)	Z-25°C/Z+20°C	4	3	2	2	2	2	2																											
	Z-40°C/Z+20°C	10	8	6	4	3	3	3																											
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated rippled current is applied for 2000 hours at 105°C .(Reverse polarity every 25 hours.)</p> <table border="1"> <thead> <tr> <th>Rated voltage</th> <th>6.3~16V</th> <th>25~100V</th> </tr> </thead> <tbody> <tr> <td>Capacitance change</td> <td>≤±25% of the initial value</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (Tan δ)</td> <td>≤ 150% of the initial specified value</td> <td></td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> <td></td> </tr> </tbody> </table>								Rated voltage	6.3~16V	25~100V	Capacitance change	≤±25% of the initial value	≤±20% of the initial value	D.F. (Tan δ)	≤ 150% of the initial specified value		Leakage current	≤The initial specified value																
Rated voltage	6.3~16V	25~100V																																	
Capacitance change	≤±25% of the initial value	≤±20% of the initial value																																	
D.F. (Tan δ)	≤ 150% of the initial specified value																																		
Leakage current	≤The initial specified value																																		
Shelf Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated rippled current is applied for 1000 hours at 105°C according to Item 4.1 of JIS C 5101-4 .(Reverse polarity every 25 minute)</p> <table border="1"> <thead> <tr> <th>Rated voltage</th> <th>6.3~16V</th> <th>25~100V</th> </tr> </thead> <tbody> <tr> <td>Capacitance change</td> <td>≤±25% of the initial value</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (Tan δ)</td> <td>≤ 150% of the initial specified value</td> <td></td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> <td></td> </tr> </tbody> </table>								Rated voltage	6.3~16V	25~100V	Capacitance change	≤±25% of the initial value	≤±20% of the initial value	D.F. (Tan δ)	≤ 150% of the initial specified value		Leakage current	≤The initial specified value																
Rated voltage	6.3~16V	25~100V																																	
Capacitance change	≤±25% of the initial value	≤±20% of the initial value																																	
D.F. (Tan δ)	≤ 150% of the initial specified value																																		
Leakage current	≤The initial specified value																																		

◆ DIMENSIONS(mm)



Frequency Cap (μF)	50/60Hz	120Hz	1KHz	≥10KHz
≤8.2	0.65	1.00	1.35	2.30
10~82	0.75	1.00	1.25	1.75
100~820	0.80	1.00	1.15	1.40
≥1000	0.85	1.00	1.03	1.08

◆ Frequency Coefficient

ΦD	5	6.3	8	10	13	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
a	1.5	1.5	1.5	2.0	2.0	2.0	2.0

Temperature (°C)	+70	+85	+105
Coefficient	1.8	1.4	1.0

◆ Temperature Coefficient

NH 系列 SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 105°C120Hz	Size $\phi D \times L$
(V)	(μ F)	(mA rms)	(mm)
6.3 (8) 0J	33	45	5×11
	47	54	5×11
	100	90	6.3×12
	220	150	8×12
	330	185	8×12
	470	260	10×12.5
	1000	460	10×20
	2200	820	13×25
	3300	1110	16×25
	4700	1430	16×31.5
	6800	1830	18×35.5
	22	37	5×11
10 (13) 1A	33	45	5×11
	47	54	5×11
	100	90	6.3×12
	220	150	8×12
	330	240	10×16
	470	290	10×16
	1000	510	13×20
	2200	910	16×25
	3300	1200	16×31.5
	4700	1520	18×35.5
	10	27	5×11
16 (20) 1C	22	40	5×11
	33	49	5×11
	47	67	6.3×12
	100	110	8×12
	220	195	10×12.5
	330	265	10×16
	470	345	10×20
	1000	605	13×25
	2200	1070	16×31.5
	3300	1400	18×35.5
	10	27	5×11
25 (32) 1E	22	46	6.3×12
	33	56	6.3×12
	47	67	6.3×12
	100	110	8×12
	220	215	10×16
	330	320	13×20
	470	380	13×20
	1000	670	16×25
	2200	1140	18×35.5

UR (Surge Voltage) Code	Rated Capacitance	Rated Ripple Current 105°C120Hz	Size $\phi D \times L$
(V)	(μ F)	(mA rms)	(mm)
35 (44) 1V	4.7	21	5×11
	10	30	5×11
	22	51	6.3×12
	33	72	8×12
	47	86	8×12
	100	160	10×16
	220	290	13×20
	330	350	13×20
	470	465	13×25
	1000	805	16×31.5
	0.47	7	5×11
	1	10	5×11
50 (63) 1H	2.2	15	5×11
	3.3	18	5×11
	4.7	22	5×11
	10	37	6.3×12
	22	63	8×12
	33	77	8×12
	47	105	10×12.5
	100	190	10×20
	220	340	13×25
	330	460	16×25
	470	590	16×31.5
	3.3	20	5×11
63 (79) 1J	4.7	24	6.3×12
	10	40	6.3×12
	22	68	8×12
	33	98	10×12.5
	47	130	10×16
	100	225	13×20
	220	405	16×25
	330	535	16×31.5
	470	680	18×35.5
	0.47	8	5×11
	1	12	5×11
	2.2	20	6.3×12
100 (125) 2A	3.3	25	6.3×12
	4.7	30	6.3×12
	10	50	8×12
	22	97	10×16
	33	140	13×20
	47	170	13×20
	100	300	16×25
	220	510	18×35.5
	0.47	8	5×11
	1	12	5×11
	2.2	20	6.3×12

Customer products are available on request