

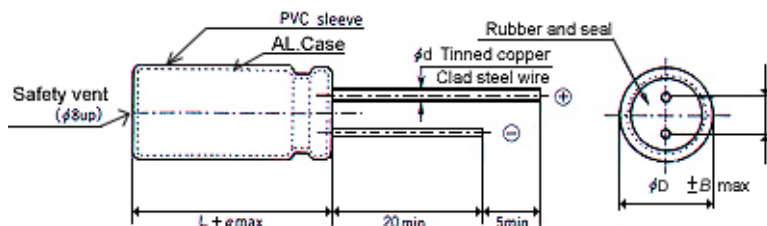
# NR Series Non-Polarized at 120HZ



項目 Item	特性 Characteristics																								
使用溫度範圍 Operating Temperature Range	- 40 ~ 105°C																								
額定電壓範圍 Rated Working Voltage Range	10V ~ 100V DC																								
靜電容量容許差 Capacitance Tolerance (120Hz, 25°C )	±20% (M)																								
洩漏電流 Leakage Current ( 25°C )	$I \leq 0.04CV + 10 (\mu A)$ I : Leakage Current ( $\mu A$ ) C : Rated Capacitance ( $\mu F$ ) V : Working Voltage (V) After 5 minutes applying the DC working Voltage																								
突波電壓 Surge Voltage (25°C )	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>S.V.</td> <td>13</td> <td>20</td> <td>32</td> <td>44</td> <td>63</td> <td>79</td> <td>125</td> </tr> </table>	W.V.	10	16	25	35	50	63	100	S.V.	13	20	32	44	63	79	125								
W.V.	10	16	25	35	50	63	100																		
S.V.	13	20	32	44	63	79	125																		
散逸因素 (Tan. $\theta$ ) Dissipation Factor (120Hz, 25°C )	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Tan. <math>\theta</math></td> <td>0.25</td> <td>0.20</td> <td>0.17</td> <td>0.15</td> <td>0.12</td> <td>0.12</td> <td>0.10</td> </tr> </table>	W.V.	10	16	25	35	50	63	100	Tan. $\theta$	0.25	0.20	0.17	0.15	0.12	0.12	0.10								
W.V.	10	16	25	35	50	63	100																		
Tan. $\theta$	0.25	0.20	0.17	0.15	0.12	0.12	0.10																		
溫度特性 Temperature Characteristics	<table border="1"> <tr> <td>W.V.</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>-25°C /+25°C</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>-40°C /+25</td> <td>6</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> Impedance ratio at 120HZ	W.V.	10	16	25	35	50	63	100	-25°C /+25°C	3	2	2	2	2	2	2	-40°C /+25	6	6	4	4	3	3	3
W.V.	10	16	25	35	50	63	100																		
-25°C /+25°C	3	2	2	2	2	2	2																		
-40°C /+25	6	6	4	4	3	3	3																		
高溫負荷特性 Load Test	After 2000 hours application of W.V. at +105°C the capacitor shall meet he following limits <table border="1"> <tr> <td>Capacitance change</td> <td><math>\leq \pm 25\%</math> of initial value</td> </tr> <tr> <td>Tan. <math>\theta</math></td> <td><math>\leq \pm 200\%</math> of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td><math>\leq</math> initial specified value</td> </tr> </table>	Capacitance change	$\leq \pm 25\%$ of initial value	Tan. $\theta$	$\leq \pm 200\%$ of initial specified value	Leakage current	$\leq$ initial specified value																		
Capacitance change	$\leq \pm 25\%$ of initial value																								
Tan. $\theta$	$\leq \pm 200\%$ of initial specified value																								
Leakage current	$\leq$ initial specified value																								
放置特性 Shelf Test	After 500 hours application of W.V. at +105°C the capacitor shall meet he following limits <table border="1"> <tr> <td>Capacitance change</td> <td><math>\leq \pm 20\%</math> of initial value</td> </tr> <tr> <td>Tan. <math>\theta</math></td> <td><math>\leq 200\%</math> of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td><math>\leq 200\%</math> of initial specified value</td> </tr> </table>	Capacitance change	$\leq \pm 20\%$ of initial value	Tan. $\theta$	$\leq 200\%$ of initial specified value	Leakage current	$\leq 200\%$ of initial specified value																		
Capacitance change	$\leq \pm 20\%$ of initial value																								
Tan. $\theta$	$\leq 200\%$ of initial specified value																								
Leakage current	$\leq 200\%$ of initial specified value																								

# NR

## 尺寸圖 Dimension



$L = 16 \rightarrow \alpha = 1$	$\phi D \leq 10 \rightarrow \beta = 0.5$
$L > 16 \rightarrow \alpha = 2$	$\phi D > 10 \rightarrow \beta = 1.0$

D	5	6	8	10	13	16
$F \pm 0.5$	2	2.5	3.5	5	5	7.5
$d \pm 0.02$	0.5	0.5	0.5	0.6	0.6	0.8

Unit (mm)

D x L (m/m)

$\mu F$	WV		10		16		25		35		50		63		100											
0.47	尺寸 Dimension : $\phi D \times L$ (mm)														5*11	10	5*11	10	5*11	13						
1	紋波電流 Ripple Current : mA (rms) at 120Hz 105°C														5*11	16	5*11	16	5*11	20						
2.2															5*11	24	5*11	24	5*11	32						
3.3															5*11	29	5*11	35	6*12	47						
4.7															5*11	39	6*12	42	6*12	55						
10															5*11	48	5*11	51	6*12	67	6*12	70	10*12	95		
22															5*11	66	5*11	82	5*11	89	6*12	109	10*12	124	10*16	171
33	5*11	73	5*11	93	6*12	100	6*12	119	8*12	143	10*16	166	13*21	210												
47	6*12	88	6*12	109	6*12	133	8*12	157	8*12	181	13*21	219	13*25	276												
100	6*12	183	6*12	195	8*12	228	10*17	271	10*20	295	13*25	390	16*26	485												