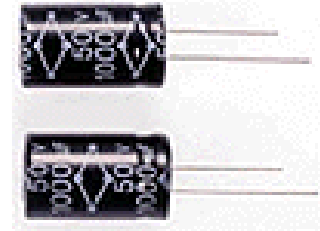


# 105°C HIGH TEMPERATURE CAPACITORS

®

## RH series general purpose 105°C 高溫度標準品

- 本系列為高 CV 值，適用於一般民生電子產品，有防爆孔設計，在 105°C 常溫下，耐用 2000 小時。
- For general purpose.
- Wide CV value range.
- Safety vent construction products, RH series are guaranteed for 2,000 hours at 105°C.



### specifications

No.	Item	Performance																																																					
1	使用溫度範圍 Operating Temperature Range	-40 to+105°C	-25 to+105°C																																																				
2	定格電壓範圍 Rated Working Voltage Range	6.3 – 100v.DC	160 – 450v.DC																																																				
3	靜電容量範圍 Nominal Capacitance Range	0.1 – 15000 $\mu$ F	0.47 – 330 $\mu$ F																																																				
4	靜電容量容許差 Capacitance Tolerance	$\pm 20\%$ (at+20°C ,120Hz)																																																					
5	漏洩電流 Leakage Current	$I \leq 0.01CV$ or 3( $\mu$ A) max	$I \leq 0.03CV + 20(\mu$ A) max																																																				
		Whichever is greater after 3 minutes. I :Leakage Current ( $\mu$ A) C: Rated Capacitance ( $\mu$ F) V:Working Voltage(v)																																																					
6	損失角 Dissipation Factor( $\tan \delta$ ) (120Hz\+20°C)	<table border="1"> <thead> <tr> <th>Working 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> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td><math>\tan \delta</math> max.</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.07</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.24</td> <td>0.24</td> </tr> </tbody> </table> <p>Add 0.02 per 1000 <math>\mu</math>F for more than 1000<math>\mu</math>F.</p>		Working Voltage V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	$\tan \delta$ max.	0.22	0.19	0.16	0.14	0.12	0.10	0.10	0.07	0.15	0.15	0.15	0.20	0.24	0.24																						
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7	最大容許電流 Maximum Permissible Ripple Current	<p>Refer to standard products table(120Hz,+105°C) Correction factor for frequency.</p> <table border="1"> <thead> <tr> <th colspan="2">Freq.(Hz)</th> <th>60</th> <th>120</th> <th>1K</th> <th>10K</th> <th>100K</th> </tr> </thead> <tbody> <tr> <td rowspan="3">W.V.(V.DC)</td> <td>0.1-330</td> <td>0.85</td> <td>1</td> <td>1.30</td> <td>1.40</td> <td>1.55</td> </tr> <tr> <td>470-3300</td> <td>0.95</td> <td>1</td> <td>1.15</td> <td>1.20</td> <td>1.25</td> </tr> <tr> <td><math>\geq 4700</math></td> <td>0.95</td> <td>1</td> <td>1.10</td> <td>1.20</td> <td>1.20</td> </tr> <tr> <td rowspan="3">63~100</td> <td>0.47-33</td> <td>0.75</td> <td>1</td> <td>1.55</td> <td>1.65</td> <td>1.80</td> </tr> <tr> <td>47-220</td> <td>0.75</td> <td>1</td> <td>1.40</td> <td>1.60</td> <td>1.65</td> </tr> <tr> <td><math>\geq 330</math></td> <td>0.80</td> <td>1</td> <td>1.30</td> <td>1.35</td> <td>1.40</td> </tr> <tr> <td><math>\geq 160</math></td> <td>1-220</td> <td>0.70</td> <td>1</td> <td>1.30</td> <td>1.70</td> <td>1.70</td> </tr> </tbody> </table>		Freq.(Hz)		60	120	1K	10K	100K	W.V.(V.DC)	0.1-330	0.85	1	1.30	1.40	1.55	470-3300	0.95	1	1.15	1.20	1.25	$\geq 4700$	0.95	1	1.10	1.20	1.20	63~100	0.47-33	0.75	1	1.55	1.65	1.80	47-220	0.75	1	1.40	1.60	1.65	$\geq 330$	0.80	1	1.30	1.35	1.40	$\geq 160$	1-220	0.70	1	1.30	1.70	1.70
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8	溫度特性(at 120 Hz) Characteristics at low temperature (stability at 120 Hz)	<table border="1"> <thead> <tr> <th>Working 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> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>-25°C/+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> <td>6</td> <td>6</td> <td>15</td> </tr> <tr> <td>-40°C/+20°C</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>For capacitance value &gt;1000 <math>\mu</math>F, Add 0.5 per another 1000 <math>\mu</math>F for -25°C/+25°C. Add 1.0 per another 1000<math>\mu</math>F for -40°C/+20°C.</p>		Working Voltage V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	-25°C/+20°C	4	3	2	2	2	2	2	2	3	3	3	6	6	15	-40°C/+20°C	8	6	4	3	3	3	3	3													
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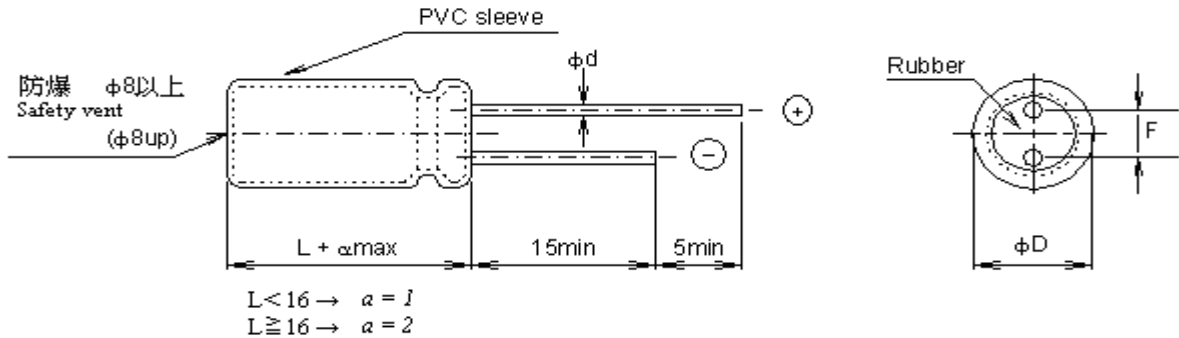
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### Diagram of Dimensions

Unit (mm)



D $\phi$ (+ 0.5Max)	5	6.3	8	10	13	16	18	22
F ( $\pm 0.5$ )	2	2.5	3.5	5	5	7.5	7.5	10
d $\phi$ ( $\pm 0.02$ )	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8

### Case Size Table

$\mu$ F	W.V. (SV)	$\phi$ DxL(mm)							
		6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)
0.1						→	5x11	5x11	5x11
0.22						→	5x11	5x11	5x11
0.33						→	5x11	5x11	5x11
0.47						→	5x11	5x11	5x11
1.0						→	5x11	5x11	5x11
2.2						→	5x11	5x11	5x11
3.3						→	5x11	5x11	5x11
4.7						→	5x11	5x11	5x11
10				→	5x11	5x11	5x11	5x11	6.3x11
22				→	5x11	5x11	5x11	6.3x11	8x11
33			→	5x11	5x11	5x11	6.3x11	6.3x11	8x11
47	→	5x11	5x11	5x11	5x11	6.3x11	6.3x11	8x11	10x16
100	→	5x11	6.3x11	6.3x11	6.3x11	8x11	8x11	10x13	13x21
220	→	6.3x11	8x11	8x11	8x11	10x13	10x16	10x21	16x26
330	6.3x11	8x11	8x11	10x13	10x16	10x16	10x20	13x21	16x26
470	8x11	8x11	10x13	10x16	10x21	10x21	13x21	13x26	16x26
680					13x21	13x21			
1,000	10x13	10x16	10x21	13x21	13x21	13x21	16x26	16x32	
2,200	10x21	13x21	13x21	13x26	16x32	16x32	18x36		
3,300	13x21	13x21	13x26	16x32	18x36	18x36	18x42		
4,700	13x26	16x26	16x32	16x36	18x36	18x36			
6,800	16x26	16x32	18x36	18x42					
10000	16x32	18x36	18x42						
15000	18x36	18x42							

※ 空格部份膠管所標示的電壓以“→”右方一格表示 ※ All blank voltage on sleeve marking is the same voltage as “→” point to.

### Case Size Table

$\mu$ F	WW (SV)	$\phi$ DxL(mm)					
		160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.47		6.3x11	6.3x11	6.3x11	8x11	8x11	8x11
1.0		6.3x11	6.3x11	6.3x11	8x11	8x11	10x16
2.2		6.3x11	6.3x11	6.3x11	8x11	10x13	10x21
3.3		6.3x11	6.3x11	8x11	10x13	10x13	13x21
4.7		6.3x11	8x11	8x11	10x13	10x16	13x21
10		8x11	10x13	10x16	10x21	13x21	16x26
22		10x16	10x21	13x21	13x26	13x26	16x32
33		10x21	13x21	13x21	16x26	16x32	18x32
47		13x21	13x21	13x26	16x36	18x36	
100		13x26	16x26	16x32	18x42		
220		16x36	18x42				
330		18x42					