

# SHELCON

# Radial Lead Aluminum Electrolytic Capacitors

SHELCON SHT

引线型铝电解电容器

- Ultra Low Impedance for Personal Computer and Storage Equipment 超低阻抗品，使用于计算机及记忆储存
- Voltage range of 6.3 ~ 100V 工作电压：6.3V- 100V
- 6000 hours guaranteed for  $\Phi D = \Phi 5 - \Phi 8$   $\Phi D \leq \Phi 10$  寿命保证 6000小时
- 8000 hours guaranteed for  $\Phi D = \Phi 10 - \Phi 18$   $\Phi D \geq \Phi 13$  寿命保证 8000小时

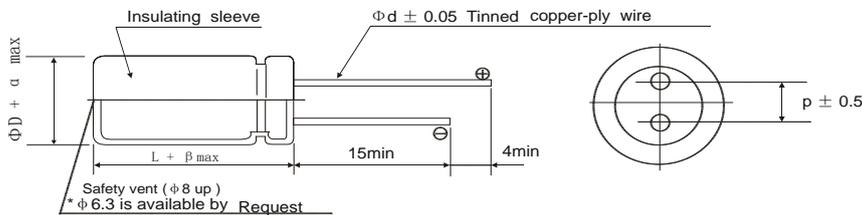


## SPECIFICATIONS

技术参数

Item (项目)	Characteristics (特征)																											
Operating Temperature Range	- 40 ~ +105°C																											
Voltage Range (额定电压)	6.3 ~ 100 V.DC																											
Nominal Cap. Range (容量范围)	6.8~ 6800 $\mu$ F																											
Capacitance Tolerance	- 20% ~ + 20% (at 20°C, 120Hz)																											
Leakage Current 漏电流	WV <span style="float:right">6.3 V ~ 100 V</span>																											
	L.C. <span style="float:right">I = 0.01CV or 3(<math>\mu</math>A) whichever is greater(after 2min)</span> 施加额定电压2分钟测试																											
where, I: Max Leakage Current ( $\mu$ A); C: Nominal Capacitance ( $\mu$ F), V: Rated Voltage(V) (at 20°C) 注解: I: 漏电流 $\mu$ A C: 容量( $\mu$ F), V: 额定电压(V) (在 20°C)																												
Dissipation Factor (tan $\delta$ ) (at 120Hz, +20°C) (损失角正切)	<table border="1"> <tr> <td>WV</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>80</td> <td>100</td> </tr> <tr> <td>tan<math>\delta</math></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>0.09</td> <td>0.09</td> <td>0.08</td> </tr> </table>	WV	6.3	10	16	25	35	50	63	80	100	tan $\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08							
	WV	6.3	10	16	25	35	50	63	80	100																		
tan $\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08																			
Add 0.02 per 1,000 $\mu$ F for more than 1,000 $\mu$ F items. 容量超过1000 $\mu$ F; 每超过1000 $\mu$ F, 损失角增加0.02																												
Impedance ( $\Omega$ ) 阻抗值	See case size table 参照目录表																											
	<table border="1"> <tr> <td>W. V.</td> <td>6.3</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>Z(-25°C)/Z(+25°C)</td> <td>6</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> <tr> <td>Z(-55°C)/Z(+25°C)</td> <td>8</td> <td>7</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> <td>5</td> </tr> </table>	W. V.	6.3	10	16	25	35	50	63	100	Z(-25°C)/Z(+25°C)	6	4	4	4	4	4	4	4	Z(-55°C)/Z(+25°C)	8	7	5	5	5	5	5	5
W. V.	6.3	10	16	25	35	50	63	100																				
Z(-25°C)/Z(+25°C)	6	4	4	4	4	4	4	4																				
Z(-55°C)/Z(+25°C)	8	7	5	5	5	5	5	5																				
High Temp. Load Test (高温负荷特性)	After $\Phi D = \Phi 5 - \Phi 8$ 6000hours $\Phi D = \Phi 10 - \Phi 18$ 8000 hours, application of DC rated working voltage at + 105°C, the capacitor shall meet the following lim 105°C 施加额定电压5000-8000小时后满足下列条件 Capacitance change $\leq \pm 20\%$ of the initial measured value 容量在 $\pm 20\%$ 范围内 Tan $\delta$ ... $\leq 200\%$ of the initial specified value 损失角在初始规定值200% DC leakage current ... $\leq$ the initial specified value 漏电流小于或等于规格值																											
High Temp. Non-Load Test (高温无负荷特性)	After storage for 500 hours at 105°C with no voltage applied, voltage treatment of JIS-C-5102 article 4-4 is to be given and then measurement shall be made, at which time requirements specified in the table "High Temperature Loading" can be met. <span style="border: 1px solid black; padding: 2px;">在105°C的条件下不加电压放置500个小时, 按照JIS-C-5102中4-4的标准进行处理, 特性满足高温负荷特性</span>																											

## DIMENSIONS(mm) 尺寸



Unit:(mm)

$\Phi D$	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
$\phi d$	0.5		0.6		0.8		
$\beta$	1.0			2.0			
$\alpha$	0.5						

## MULTIPLIER FOR RIPPLE CURRENT 纹波电流补正

(1) Frequency coefficient

频率系数

Cap( $\mu$ F)	Freq.(Hz)				
	60(50)	120HZ	1K	10K	100K
6.8 ~ 180	0.40	0.75	0.90	1.00	
220 ~ 560	0.50	0.85	0.94	1.00	
680 ~ 1800	0.60	0.87	0.95	1.00	
2200 ~ 3900	0.75	0.90	0.95	1.00	
4700 ~ 6800	0.85	0.95	0.98	1.00	

(2) Temperature coefficient 温度系数

Ambient Temperature(°C)	40	60	70	85	105
Coefficient	2.40	2.10	1.78	1.65	1.00

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WV (VDC)	Cap ( $\mu$ F)/120Hz	Case size	Ripple (mArms 105°C 100KHz)	Impedance ( $\Omega$ )100KHZ 阻抗值		WV (VDC)	Case size	Cap ( $\mu$ F)/120Hz	Ripple (mArms 105°C 100KHz)	Impedance ( $\Omega$ )100KHZ 阻抗值	
				20°C	-10°C					20°C	-10°C
额定电压	静电容量	尺寸DxL	纹波电流	20°C	-10°C	额定电压	静电容量	尺寸DxL	纹波电流	20°C	-10°C
6.3	150	5X11	250	0.3	1	25	47	5x11	250	0.3	1
	330	6.3X11	405	0.13	0.41		100	6.3X11	405	0.13	0.41
	560	8X11.5	760	0.072	0.22		220	8X11.5	760	0.072	0.22
	820	8x15	995	0.056	0.17		330	8X15	995	0.056	0.17
	1200	8x20	1250	0.041	0.13		470	8X20	1250	0.041	0.13
	1000	10x12.5	1030	0.053	0.16		330	10X12.5	1030	0.053	0.16
	1200	10x16	1430	0.038	0.12		470	10X16	1430	0.038	0.12
	1500	10x20	1820	0.023	0.069		680	10X20	1820	0.023	0.069
	2200	10x25	2150	0.022	0.066		820	10X25	2150	0.022	0.066
	3300	13x20	2360	0.021	0.053		1000	13X20	2360	0.021	0.053
	3900	13x25	2770	0.018	0.045		1500	13X25	2770	0.018	0.045
	4700	13*25	3290	0.015	0.038		1800	13X30	3290	0.016	0.041
	5600	13x35	3400	0.015	0.038		2200	13X35	3400	0.015	0.039
	5600	16x20	3140	0.018	0.045		1800	16X20	3140	0.018	0.045
	6800	16x25	3460	0.016	0.043		2700	16X25	3460	0.016	0.043
10	100	5X11	250	0.3	1	35	33	5x11	250	0.3	1
	220	6.3X11	405	0.13	0.41		56	6.3X11	405	0.13	0.41
	470	8X11.5	760	0.072	0.22		100	6.3X11	760	0.11	0.35
	680	8x15	995	0.056	0.17		220	8X15	995	0.056	0.17
	1000	8x20	1250	0.041	0.13		330	8X20	1250	0.041	0.13
	680	10x12.5	1030	0.053	0.16		470	10X12.5	1030	0.053	0.16
	1000	10x16	1430	0.038	0.12		560	10X16	1430	0.038	0.12
	1200	10x20	1820	0.023	0.069		680	10X20	1820	0.023	0.069
	1500	10x25	2150	0.022	0.066		680	10X25	2150	0.022	0.066
	2200	13x20	2360	0.021	0.053		1000	13X20	2360	0.021	0.053
	3300	13x25	2770	0.018	0.045		1200	13X25	2770	0.018	0.045
	3900	13x30	3290	0.016	0.041		1500	13X30	3290	0.016	0.041
	4700	13x35	3400	0.015	0.039		1200	13X35	3400	0.015	0.039
	3900	16x20	3140	0.018	0.045		1800	16X20	3140	0.018	0.045
	5600	16x25	3460	0.016	0.043		2200	16X25	3460	0.016	0.043
16	56	5X11	250	0.3	1	50	22	5x11	238	0.34	1
	100	6.3X11	500	0.11	0.35		56	6.3X11	385	0.14	0.41
	330	8X11.5	760	0.072	0.22		100	8X11.5	724	0.074	0.22
	470	8x15	995	0.056	0.17		120	8X15	950	0.061	0.17
	680	8x20	1250	0.041	0.13		180	8X20	1190	0.046	0.13
	470	10x12.5	1030	0.053	0.16		150	10X12.5	979	0.061	0.16
	680	10x16	1430	0.038	0.12		220	10X16	1370	0.042	0.12
	1000	10x20	1820	0.023	0.069		270	10X20	1580	0.030	0.069
	1200	10x25	2150	0.022	0.066		330	10X25	1870	0.028	0.066
	1500	13x20	2360	0.021	0.053		470	13X20	2050	0.027	0.053
	2200	13x25	2770	0.018	0.045		560	13X25	2410	0.023	0.045
	2700	13x30	3290	0.016	0.041		680	13X30	2860	0.021	0.041
	3300	13x35	3400	0.015	0.039		820	13X35	2960	0.019	0.039
	2700	16x20	3140	0.018	0.045		820	16X20	2730	0.023	0.045
	3900	16x25	3460	0.016	0.043		1000	16X25	3010	0.021	0.043

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				20 $^{\circ}$ C	-10 $^{\circ}$ C					20 $^{\circ}$ C	-10 $^{\circ}$ C
额定电压	静电容量	尺寸D $\times$ L	纹波电流	20 $^{\circ}$ C	-10 $^{\circ}$ C	额定电压	静电容量	尺寸D $\times$ L	纹波电流	20 $^{\circ}$ C	-10 $^{\circ}$ C
63	15	5x11	165	0.88	3.5	100	6.8	5x11	125	1.4	5.6
	33	6.3X11	265	0.35	1.4		15	6.3X11	205	0.57	2.3
	56	8X11.5	500	0.22	0.88		27	8X11.5	355	0.36	1.4
	82	8X15	665	0.160	0.64		39	8X15	450	0.250	1
	120	8X20	820	0.120	0.48		56	8X20	565	0.190	0.76
	82	10X12.5	690	0.110	0.44		47	10X12.5	480	0.170	0.66
	120	10X16	950	0.076	0.31		68	10X16	600	0.110	0.47
	180	10X20	1150	0.056	0.23		82	10X20	800	0.084	0.34
	220	10X25	1350	0.046	0.19		120	10X25	900	0.069	0.28
	180	13X16	1150	0.072	0.29		100	13X16	750	0.110	0.34
	270	13X20	1500	0.041	0.13		150	13X20	1100	0.062	0.18
	390	13X25	1900	0.031	0.093		220	13X25	1250	0.047	0.14
	470	13X30	2300	0.028	0.084		270	13X30	1500	0.042	0.13
	560	13X35	2500	0.024	0.072		330	13X35	1650	0.036	0.11
	680	13X40	2800	0.021	0.063		390	13X40	1800	0.032	0.095
	470	16X20	2000	0.032	0.096		220	16X20	1350	0.048	0.15
	680	16X25	2600	0.025	0.075		330	16X25	1700	0.038	0.12
	820	16X31.5	2850	0.021	0.063		470	16X31.5	1850	0.032	0.095
	1000	16X35.5	2900	0.029	0.057		560	16X35.5	2000	0.029	0.086
	1200	16X40	3400	0.018	0.054		680	16X40	2200	0.027	0.081
680	18X20	2500	0.030	0.090	330	18X20	1500	0.045	0.140		
820	18X25	2800	0.024	0.072	470	18X25	1750	0.036	0.110		
1200	18X31.5	3300	0.020	0.060	560	18X31.5	1900	0.030	0.090		
1500	18X35.5	3400	0.018	0.054	680	18X35.5	2200	0.027	0.081		
1800	18X40	3500	0.017	0.051	820	18X40	2700	0.026	0.077		
80	68	10X12.5	480	0.170	0.66						
	100	10X16	600	0.110	0.47						
	120	10X20	800	0.084	0.34						
	150	10X25	900	0.069	0.28						
	150	13X16	750	0.110	0.34						
	220	13X20	1100	0.062	0.18						
	330	13X25	1250	0.047	0.14						
	390	13X30	1500	0.042	0.13						
	470	13X35	1650	0.036	0.11						
	560	13X40	1800	0.032	0.095						
	330	16X20	1350	0.048	0.15						
	470	16X25	1700	0.038	0.12						
	680	16X31.5	1850	0.032	0.095						
	820	16X35.5	2000	0.029	0.086						
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