

### LHA Series 焊片/焊针型铝电解电容器音响专用品

#### Snap-in Type Aluminum Electrolytic Capacitors

105℃, 2000 小时

最适用于高音质音响设备的音响用铝电解电容器

打造高品质 HD 音响设备的音响效果

符合 ROHS

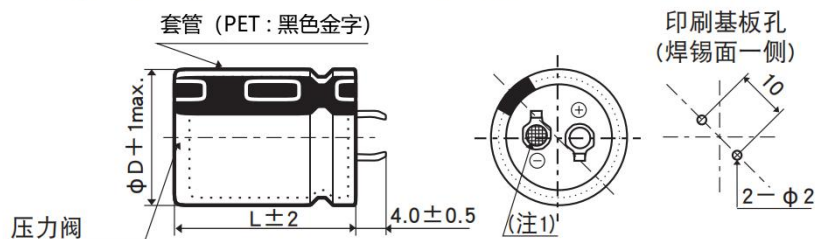


### ■主要技术性能 Specifications

使用温度范围 Operating Temperature Range	-40 ~ +105℃	-25 ~ +105℃																								
额定电压范围 Rated Voltage Range	16~250V DC	400~450V DC																								
标称容量允许偏差 Capacitance Tolerance	±20% (120Hz, 20℃)																									
漏电流 (20℃) Leakage Current	$I \leq 3 \sqrt{CV}$ (after 5 min)																									
	I=Leakage Current(μA), C=Capacitance(μF), V=Rated DC Working Voltage(V)																									
损耗角正切值 Dissipation Factor (120Hz 20℃)	<table border="1"> <tr> <th>W.V.</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63~100</th> <th>160~400</th> <th>420~450</th> </tr> <tr> <th>tgδ</th> <td>0.40</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.20</td> <td>0.15</td> <td>0.20</td> </tr> </table> <p>0.02 is added to every 1000μF increase over 1000μF</p>		W.V.	16	25	35	50	63~100	160~400	420~450	tgδ	0.40	0.40	0.35	0.30	0.20	0.15	0.20								
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温度特性 (120Hz) Temperature Characteristics Impedance Ratio (120Hz)	<table border="1"> <tr> <th>W.V.</th> <th>16~100</th> <th>160~250</th> <th>315~550V</th> </tr> <tr> <th><math>Z_{-25℃} / Z_{+20℃}</math></th> <td>4</td> <td>4</td> <td>8</td> </tr> <tr> <th><math>Z_{-40℃} / Z_{+20℃}</math></th> <td>12</td> <td>12</td> <td>-</td> </tr> </table>		W.V.	16~100	160~250	315~550V	$Z_{-25℃} / Z_{+20℃}$	4	4	8	$Z_{-40℃} / Z_{+20℃}$	12	12	-												
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$Z_{-40℃} / Z_{+20℃}$	12	12	-																							
耐久性 Load Life	<p>在 105℃ 环境施加额定工作电压 2000 小时后, 电容器的特性符合下表要求。 105℃ environment d rated operating voltage after 2,000 hours , capacitor characteristics meet the requirements in the following table.</p> <table border="1"> <tr> <td>容量变化率 Capacitance Change</td> <td>≤±20%初始测量值 ≤±20% of Initial measured value</td> </tr> <tr> <td>漏电流值 Leakage</td> <td>≤规定值 ≤The specified value</td> </tr> <tr> <td>损耗角正切值 Dissipation Factor</td> <td>≤2 倍规定值 ≤200% of the specified value</td> </tr> </table>		容量变化率 Capacitance Change	≤±20%初始测量值 ≤±20% of Initial measured value	漏电流值 Leakage	≤规定值 ≤The specified value	损耗角正切值 Dissipation Factor	≤2 倍规定值 ≤200% of the specified value																		
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高温贮存 Shelf Life (105℃)	<p>试验时间: 1000 小时, 其他项目与耐久性相同。电压应用处理: 根据 JIS C5101-4.1 Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 4.1</p>																									
额定纹波电流频率系数 Coefficient of Frequency for Rated Ripple Current	<table border="1"> <tr> <th>Frequency Voltage</th> <th>50Hz</th> <th>120Hz</th> <th>1KHz</th> <th>10KHz</th> <th>≥50KHz</th> </tr> <tr> <td>≤100V</td> <td>0.95</td> <td>1.00</td> <td>1.13</td> <td>1.19</td> <td>1.20</td> </tr> <tr> <td>160~250V</td> <td>0.81</td> <td>1.00</td> <td>1.32</td> <td>1.45</td> <td>1.50</td> </tr> <tr> <td>≥400V</td> <td>0.77</td> <td>1.00</td> <td>1.30</td> <td>1.41</td> <td>1.43</td> </tr> </table>		Frequency Voltage	50Hz	120Hz	1KHz	10KHz	≥50KHz	≤100V	0.95	1.00	1.13	1.19	1.20	160~250V	0.81	1.00	1.32	1.45	1.50	≥400V	0.77	1.00	1.30	1.41	1.43
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### ■外形图 Outline Drawing

●端子代码: LP (φ 22~35) : 标准品



(注1) 阴极端子的铆钉部网眼刻印。

■ 标称电容量、额定电压、额定纹波电流与外形尺寸对应表  
Nominal capacitance, rated voltage, rated ripple current and case size table

WV Cap(μF)	16V		25V		35V		50V		63V		80V	
	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)
820									22×20	1.30	25×20	1.70
1000									25×20	1.45	22×25	1.85
1200									25×20	1.65	22×30 25×25 30×20	1.95 1.90 2.00
1500							22×20	1.55	22×25	1.90	22×35 25×30	2.15 2.10
1800							25×20	1.65	22×30 25×25 30×20	2.00 2.00 2.05	22×40 30×25 35×20	2.35 2.40 2.50
2200					22×20	1.45	22×25	1.85	22×35 25×30 35×20	2.20 2.15 2.10	22×45 25×35 30×30	2.70 2.75 2.55
2700					25×20	1.55	22×30 25×25 30×20	2.00 1.95 2.05	22×40 25×35 30×25	2.45 2.35 2.50	30×35 35×25	2.80 3.00
3300			22×20	1.50	22×25	1.75	22×35	2.20	22×45 25×40 30×30	2.80 2.60 2.70	25×50 30×40 35×30	3.25 3.15 3.20
3900			25×20	1.55	30×20	1.85	22×40 25×30 30×25 35×20	2.35 2.50 2.35 2.45	25×45 30×35 35×25	2.85 2.85 3.00	30×45 35×35	3.45 3.40
4700	22×20	1.35	22×25	1.70	22×30 25×25	2.20 2.15	22×45 25×35	2.60 2.70	25×50 30×40 35×30	3.20 3.10 3.20	30×45 35×40	3.85 3.75
5600	22×20	1.45	30×20	1.82	22×35 25×30 35×20	2.35 2.25 2.25	22×50 25×40 30×30 35×25	2.90 2.90 3.00 2.85	30×45 35×35	3.45 3.40	35×45	4.10
6800	25×20	1.70	22×30 25×25	2.20 2.15	22×40 30×25	2.60 2.60	25×45 30×35	3.30 3.25	30×50 35×40	3.90 3.75	35×50	4.65
8200	22×25	1.90	22×35 25×30 35×20	2.35 2.30 2.25	22×45 25×40 30×30	2.90 2.70 2.75	30×40 35×30	3.55 3.65	35×45	4.20		
10000	22×30 25×25 30×20	2.05 2.00 2.10	22×40 25×35 30×25	2.65 2.50 2.65	25×45 30×35 35×25	3.05 3.00 3.20	30×45 35×35	4.00 4.00	35×50	4.80		
12000	22×35 25×30 35×20	2.20 2.15 2.10	22×45 25×40 30×30 35×25	2.90 2.75 2.80 2.65	25×50 30×40 35×30	3.45 3.30 3.40	35×40	4.35				
15000	22×40 25×35 30×25	2.50 2.40 2.50	25×45 30×35	3.15 3.10	30×45 35×35	3.80 3.80	35×50	4.70				
18000	22×45 25×40 30×30	2.80 2.60 2.65	25×50 30×40 35×30	3.55 3.40 3.50	30×50 35×40	4.30 4.15						
22000	25×45 30×35 35×25	2.95 2.90 2.90	30×45 35×35	3.85 3.85	35×45	4.70						
27000	25×50 30×40 35×30	3.40 3.25 3.35	35×40	4.30								
33000	30×45 35×35	3.70 3.65	35×45	4.85								

I~额定纹波电流 Rated ripple current: (A, 105°C, 120Hz)

■ 标称电容量、额定电压、额定纹波电流与外形尺寸对应表  
Nominal capacitance, rated voltage, rated ripple current and case size table

WV Cap(μF)	100V		160V		200V		250V		400V		450V	
	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)	ΦD×L (mm)	I (Arms)
82									22×25	0.64	22×30	0.64
100									22×30	0.68	22×30 25×25	0.69 0.69
120									22×30 25×25	0.73 0.73	22×35 25×30	0.72 0.72
150									22×35 25×30	0.85 0.85	22×45 25×35 30×25	0.79 0.79 0.79
180									22×40 25×35	0.95 0.95	22×50 25×40 30×30	0.87 0.87 0.87
220							22×25	1.00	22×50 25×40 30×30	1.10 1.10 1.10	25×45 30×35	1.05 1.05
270					22×25	0.99	22×30	1.10	25×45 30×35	1.22 1.22	30×40 35×30	1.23 1.23
330					22×30	1.20	22×35 25×25	1.20 1.20	25×50 30×40 35×30	1.44 1.44 1.44	30×45 35×35	1.38 1.38
390					22×30 25×25	1.31 1.31	22×40 25×30	1.30 1.30	30×45 35×35	1.55 1.55	35×40	1.61
470					22×35 25×30	1.48 1.48	22×45 25×35 30×25	1.40 1.40 1.40	30×50 35×40	1.68 1.68	35×45	1.78
560			22×25	1.50	22×40 25×35	1.60 1.60	22×50 25×40 30×30	1.50 1.50 1.50	35×45	1.90	35×50	1.99
680	22×25	1.75	22×30	1.70	22×45 25×40 30×30	1.75 1.75 1.75	25×50 30×35	1.70 1.70	35×50	2.12		
820	22×30 25×25 30×20	1.85 1.80 1.90	22×35	2.00	25×45 30×35	2.04 2.04	30×40 35×30	2.00 2.00				
1000	22×35	2.05	22×40 25×30	2.20 2.35	25×50 30×40 35×30	2.30 2.30 2.30	30×45 35×35	2.20 2.20				
1200	22×40 25×30 30×25	2.20 2.35 2.20	25×40 30×30 35×25	2.30 2.25 2.30	30×45 35×35	2.65 2.65	35×40	2.30				
1500	22×45 25×35	2.55 2.60	25×45 30×35 35×30	2.50 2.49 2.52	30×50 35×40	2.80 2.80	35×50	2.50				
1800	22×50 25×40 30×30	2.85 2.85 2.90	25×50 30×40 35×30	2.70 2.72 2.65	35×45	3.08						
2200	25×45 30×35 35×30	3.20 3.20 3.00	30×40 35×35	2.80 2.90	35×50	3.48						
2700	30×40 35×35	3.55 3.25	35×40	3.10								
3300	30×50	3.75	35×45	3.20								
3900	35×40	4.30	35×50	3.30								
4700	35×50	4.50										

I~额定纹波电流 Rated ripple current: (A, 105°C, 120Hz)