

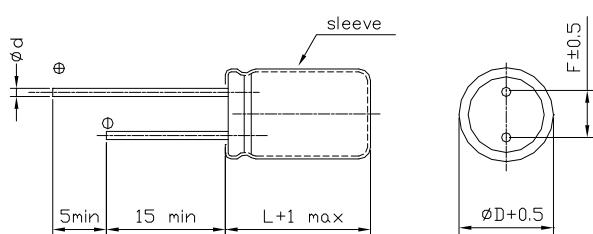
# ZL

- 低阻抗, 7(9) mm 高度, 105°C 2000 小时。  
Low impedance, with 7(9)mm height, 105°C 2000hours.
- 符合 RoHS 标准。  
RoHS compliant.

项目 Item	特性 Performance Characteristics																											
使用温度范围 Operating temperature range	-40 ~ +105°C																											
额定电压范围 Rated voltage range	6.3 ~ 50 V																											
标称电容量范围 Nominal capacitance range	1~ 560μF																											
标称电容量允许偏差 Capacitance tolerance	± 20% (120Hz, +20°C)																											
漏电流 Leakage current	$I \leq 0.01CV$ or $3(\mu A)$ 2分钟(at 20°C, after 2 minutes) 取较大者 (whichever is greater)																											
损耗角正切值 ( $\tg \delta$ ) Dissipation factor (+20°C, 120Hz)	<table border="1"> <tr> <td><math>U_R</math> (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td><math>\tg \delta</math></td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> </tr> </table>							$U_R$ (V)	6.3	10	16	25	35	50	$\tg \delta$	0.18	0.16	0.14	0.12	0.10	0.10							
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温度特性 Temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td><math>U_R</math> (V)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td><math>Z-25^\circ C / Z+20^\circ C</math></td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td><math>Z-40^\circ C / Z+20^\circ C</math></td> <td>10</td> <td>8</td> <td>8</td> <td>6</td> <td>5</td> <td>3</td> </tr> </table>							$U_R$ (V)	6.3	10	16	25	35	50	$Z-25^\circ C / Z+20^\circ C$	2	2	2	2	2	2	$Z-40^\circ C / Z+20^\circ C$	10	8	8	6	5	3
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$Z-40^\circ C / Z+20^\circ C$	10	8	8	6	5	3																						
耐久性 Load life	<p>+105°C 加额定电压 2000 小时, 恢复 16 小时后: After applying rated voltage for 2000 hours at +105°C and then resumed 16 hours:</p> <p>电容量变化率 Capacitance change : ±25% 初始测量值以内 ±25% of the initial measured value</p> <p>漏 电 流 Leakage current : ≤ 初始规定值 ≤the initial specified value</p> <p>损耗角正切值 Dissipation factor : ≤2 倍初始规定值数 ≤2times of the initial specified value</p>																											
高温贮存 Shelf life	<p>+105°C, 1000 小时贮存后, 恢复 16 小时后: After storage for 1000 hours at +105°C and then resumed for 16 hours</p> <p>电容量变化率 Capacitance change : ±25% 初始测量值以内 ±25% of the initial measured value</p> <p>漏 电 流 Leakage current : ≤2 倍初始规定值 ≤2times of the initial specified value</p> <p>损耗角正切值 Dissipation factor : ≤2 倍初始规定值数 ≤2times of the initial specified value</p>																											

外形图及尺寸表 Case size table

单位 Unit: mm



D	4	5	6.3	8
F	1.5	2.0	2.5	3.5
d	0.45	0.5	0.5	0.5

频率修正系数 Frequency coefficient

Freq.(Hz) CAP(μF)	120	1K	10K	100K
~180	0.4	0.75	0.90	1
220~560	0.5	0.85	0.94	1

## 尺寸 DIMENSIONS

WV CAP ( μF )		6.3V(0J)			10V(1A)			16V(1C)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
15	150							4x7	3.3	70
22	220				4x7	3.3	70	5x7	1.7	120
33	330	5x7	1.7	120	5x7	1.7	120	6.3x7	0.8	220
47	470	5x7	1.7	120	5x7	0.8	165	6.3x7	0.8	220
68	680	6.3x7	0.8	210	6.3x7	0.8	210	6.3x7	0.5	220
100	101	6.3x7	0.8	220	6.3x7	0.5	220	6.3x7	0.5	235
								8x7	0.5	345
150	151	6.3x7	0.5	220	6.3x7	0.5	220	6.3x7	0.5	235
220	221	8x7	0.5	345	6.3x7	0.5	240	8x7	0.45	360
					8x7	0.5	345			
330	331	8x7	0.4	360	8x7	0.4	360	8x9	0.38	380
470	471	8x7	0.4	380	8x9	0.35	380			
560	561	8x9	0.35	380	8x9	0.30	380			

WV CAP ( μF )		25V(1E)			35V(1V)			50V(1H)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
1								4x7	3.0	65
								6.3x7	2.5	90
4.7								6.3x7	1.2	160
2.2	2R2							5x7	1.0	120
6.8	6R8				4x7	3.3	70			
10	100	4x7	3.3	70	4x7	1.8	70	5x7	1.0	120
		5x7	2.8	90	5x7	1.7	120			
15	150	5x7	1.7	120	6.3x7	0.8	180	6.3x7	0.8	180
22	220	5x7	1.7	120	6.3x7	0.8	200	6.3x7	0.75	200
33	330	6.3x7	0.8	210	6.3x7	0.5	220	8x7	0.70	320
47	470	6.3x7	0.5	220	6.3x7	0.48	220	8x7	0.68	345
68	680	6.3x7	0.5	220	8x7	0.45	310	8x7	0.65	345
100	101	8x7	0.45	345	8x7	0.40	345			
150	151	8x7	0.38	360						
220	221	8x9	0.40	380						

Size φ D×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°C 100KHz

Maximum ESR (Ω) at 20°C 100KHz