

# HLM 系列 Series

## 特点 Features

- 5mm高度，良好的低漏电特性。5mmL, extremely low leakage current.
- 适用于高保真前置放大及电视振荡回路。  
Used in HI-FI pre-amplifiers and TV oscillation loop circuits.
- RoHS指令已对应完毕。Adapted to the RoHS directive.



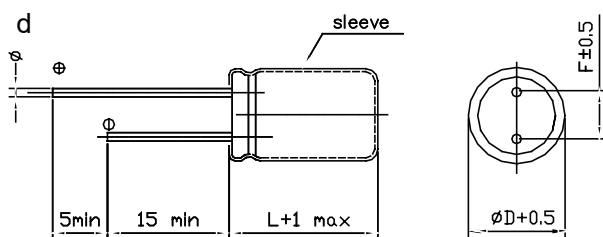
## 主要技术性能 Specifications

项目 Item	特性 Performance Characteristics																								
使用温度范围 Operating Temperature Range	-40~+85°C																								
额定电压范围 Rated Voltage Range	6.3~63V																								
标称容量范围 Nominal Capacitance Range	0.1~100μF																								
标称容量允许偏差 Capacitance Tolerance	±20% (120Hz, +20°C)																								
漏电流 Leakage Current	$I \leq 0.002CV$ or $0.4(\mu A)$ 2分钟(at 20°C, after 2 minutes) 取较大者(whichever is greater)																								
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th><math>U_R</math> (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </tbody> </table>	$U_R$ (V)	6.3	10	16	25	35	50	63	tgδ	0.26	0.22	0.18	0.16	0.14	0.12	0.10								
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温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th><math>U_R</math> (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Z-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> </tr> <tr> <td>Z-40°C / +20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	$U_R$ (V)	6.3	10	16	25	35	50	63	Z-25°C / +20°C	4	3	2	2	2	2	2	Z-40°C / +20°C	10	8	6	4	3	3	3
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耐久性 Load Life	+85°C加额定电压1000小时，恢复16小时后： After applying rated voltage for 1000 hours at +85°C and then resumed for 16 hours: 电容量变化率 Capacitance change : ±25% 初始测量值以内 ±25% of the Initial measured value 漏 电 流 Leakage current : ≤初始规定值 Initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 2times of the Initial specified value																								
高温贮存 Shelf Life	+85°C, 1000小时贮存后，加额定工作电压处理30分钟，恢复16小时后： After storage for 1000 hours at +85°C, $U_R$ to be applied for 30 minutes and then resumed 16 hours: 电容量变化率 Capacitance change : ±25% 初始测量值以内 ±25% of the Initial measured value 漏 电 流 Leakage current : ≤初始规定值 Initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 2times of the Initial specified value																								

## 频率修正系数 Frequency Coefficient

CAP(μF) \ F(Hz)	F(Hz)			
	60	120	1K	≥10K
0.1~22	0.8	1	1.5	1.7
33~100	0.8	1	1.25	1.35

## 外形图及尺寸表 Case Size Table



单位 Unit: mm

D	4	5	6.3
F	1.5	2.0	2.5
d	0.45		

**尺寸 Dimensions**

WV CAP(μF)		6.3V(0J)		10V(1A)		16V(1C)		25V(1E)		35V(1V)		50V(1H)		63V(1J)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1	0R1													4×5	0.7
0.22	R22													4×5	1.3
0.33	R33													4×5	1.9
0.47	R47													4×5	2.7
1	010													4×5	5.5
2.2	2R2											4×5	8	4×5	9
3.3	3R3											4×5	10	5×5	11
4.7	4R7									4×5	11	4×5	12	5×5	13
10	100					4×5	14	4×5	15	5×5	18	5×5	20	6.3×5	22
22	220			4×5	19	5×5	22	5×5	25	6.3×5	28	6.3×5	31		
33	330	5×5	19	5×5	25	5×5	27	6.3×5	30	6.3×5	34				
47	470	5×5	22	5×5	30	6.3×5	34	6.3×5	38						
100	101	6.3×5	37	6.3×5	46										

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 85°C 120Hz