

# HPD

导电性高分子固体铝电解电容器(低阻抗品) -贴片型

Conductive polymer solid aluminum electrolytic capacitor (Low ESR Type)- SMD type

## 特点 Features

- 适用于表面贴装。Use for surface mounted type.
- 适用于无铅回流焊。The product can support lead free -reflow .
- RoHS指令已对应完毕。Adapted to the RoHS directive.



## 主要技术性能 Specifications

项目 Items	特性 Characteristics					
工作温度范围 Operating Temperature Range	-55~+105°C					
额定电压范围 Rated Voltage Range	2.5~25V					
标称电容量范围 Nominal Capacitance Range	22~2700μF					
标称电容量允许偏差 Nominal Capacitance Tolerance	± 20% (20°C, 120Hz)					
漏电流 Leakage Current	参照规格表 Reference parameter table 2分钟 at 20°C, after 2 minutes					
损耗角正切(tgδ) Dissipation Factor (Max)	20°C, 120Hz	直径 tgδ	Φ5 0.10	Φ6.3(L≤7) 0.10	Φ6.3 (L>7) 0.08	Φ8~Φ10 0.08
等效串联电阻 ESR	参照规格表 Reference parameter table (mΩ at 100k~300kHz 20°C max)					
高低温特性比 Characteristics of impedance ratio at high temp. and low temp	要求在100KHZ 20°C Based the value at 100 KHZ. +20°C	-55°C +105°C	Z/Z20°C Z/Z220°C	0.75 to 1.25	Z/Z220°C 0.75 to 1.25	
耐久性 Load Life	+ 105°C施加额定电压2000小时后, 待温度恢复到20°C后进行测试, 电容器应能满足以下要求: After 2000 hours' application of rated voltage at 105°C, and then being stabilized at +20°C, the capacitors shall meet the following requirement:					
	电容量变化率 Capacitance Change	± 20%初始值以内 Within ± 20% of the initial value (16V: within ± 25% of the initial value)				
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150 % of the initial specified value				
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150 % of the initial specified value				
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value				
稳态湿热 Damp heat (Steady state)	60°C, 90~95% RH, 不加电压1000小时 60°C , 90~95% RH, 1000 hours, No-applied voltage.					
	电容量变化率 Capacitance Change	± 20%初始值以内 Within ± 20% of the initial value (16V: within ± 25% of the initial value)				
	损耗角正切 Dissipation Factor	≤ 150%初始规定值 Not more than 150 % of the initial specified value				
	阻抗 Equivalent Series Resistance	≤ 150%初始规定值 Not more than 150 % of the initial specified value				
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value				
耐焊接热 Resistance to Soldering Heat	(VPS)(260°C X 10s)					
	电容量变化率 Capacitance Change	± 10%初始值以内 Within ± 10% of the initial value (16V以上: within ± 15% of the initial value)				
	损耗角正切 Dissipation Factor	≤ 初始规定值 Not more than the initial specified value				
	阻抗 Equivalent Series Resistance	≤ 初始规定值 Not more than the initial specified value				
	漏电流 Leakage Current	≤ 初始规定值 Not more than the initial specified value				

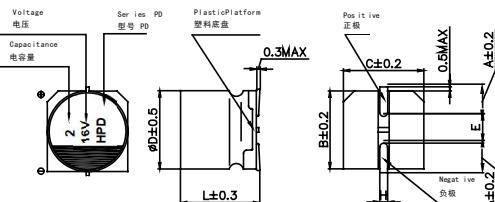
\* 当产生疑问的时候, 用以下电压处理后测定。

电压处理: 125°C下, 连续加载120分钟的电压。加载电压为额定电压。  
When in doubt, apply the following voltage treatment and measure.

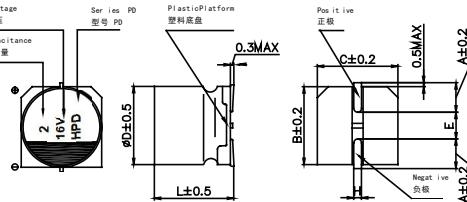
Voltage processing: under the condition of 125 °C ambient temperature, continuous load voltage of 120 minutes. Load voltage is rated voltage.

## 尺寸图 Dimensions

Φ5 ~ Φ6.3



Φ8 ~ Φ10



## 尺寸表 Size List

单位 Unit: mm

	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10.5	8×12.5	10 × 10.5	10 × 12.5
A	2.1	2.4	2.4	2.9	2.9	3.2	3.2
B	5.3	6.6	6.6	8.3	8.3	10.3	10.3
C	5.3	6.6	6.6	8.3	8.3	10.3	10.3
E	1.3	2.2	2.2	3.1	3.1	4.5	4.5
L	5.8	5.8	7.7	10.5	12.5	10.5	12.5
H	0.5~0.8			0.8~1.1			

## 标称电容量、额定电压、额定纹波电流与尺寸对应表

## Nominal Capacitance, Rated Voltage, Rated Ripple Current and Case Size Table

Rated Volt. (V)	Capacitance (uF)	Size ΦD×L(mm)	Tanδ (120Hz,20°C)	LC (μA)	ESR (mΩ/at 100k~300kHz 20°C max)	Rated R. C. (mA/rms at 100kHz, 105°C)
2.5	180	5×5.8	0.1	300	20	2800
	220	6.3×5.8	0.1	300	18	3200
	270	6.3×5.8	0.1	300	18	3200
	330	6.3×5.8	0.1	300	18	3300
	390	6.3×5.8	0.1	300	18	3300
	470	6.3×7.7	0.1	300	15	4200
	560	6.3×7.7	0.1	300	15	4200
	680	8×10.5	0.08	340	13	4700
	820	8×10.5	0.08	410	13	4700
	1000	8×10.5	0.08	500	13	4700
	1200	8×12.5	0.08	600	10	5100
	1500	8×12.5	0.08	750	10	5100
	2200	10×10.5	0.08	1100	10	5600
	2700	10×12.5	0.08	1350	10	5600
	100	5×5.8	0.1	300	20	2600
4	150	5×5.8	0.1	300	20	2600
	220	6.3×5.8	0.1	300	18	3100
	270	6.3×5.8	0.1	300	18	3100
	330	6.3×5.8	0.1	300	18	3200
	390	6.3×5.8	0.1	312	18	3200
	470	6.3×7.7	0.1	376	15	4100
	560	6.3×7.7	0.1	448	15	4100
	680	8×10.5	0.08	544	13	4600
	820	8×10.5	0.08	656	13	4600
	1000	8×10.5	0.08	800	13	4600
	1200	8×12.5	0.08	960	13	5100
	1500	8×12.5	0.08	1200	13	5100
	2200	10×10.5	0.08	1760	10	5600
	2700	10×12.5	0.08	2160	10	5600
6.3	100	5×5.8	0.1	300	20	2400
	100	6.3×5.8	0.1	300	18	3100
	120	5×5.8	0.1	300	20	2400
	120	6.3×7.7	0.1	300	15	3900
	150	6.3×5.8	0.1	300	18	3100
	220	6.3×5.8	0.1	300	18	3100
	220	6.3×7.7	0.1	300	15	3900
	330	6.3×7.7	0.1	415	15	3900
	470	6.3×7.7	0.1	592	15	2600
	680	8×10.5	0.08	856	13	4100
	820	8×10.5	0.08	1033	13	4100
	1000	8×10.5	0.08	1260	13	4100
	1200	8×12.5	0.08	1512	13	4700

Rated Volt. (V)	Capacitance (uF)	Size ΦD×L(mm)	Tanδ (120Hz,20°C)	LC (μA)	ESR (mΩ/at 100k~300kHz 20°C max)	Rated R. C. (mA/rms at 100kHz, 105°C)
6.3	1500	8×12.5	0.08	1890	13	4700
	2200	10×10.5	0.08	2772	10	5400
	2700	10×12.5	0.08	3400	10	5400
10	47	5×5.8	0.1	300	35	2300
	56	5×5.8	0.1	300	35	2300
	56	6.3×5.8	0.1	300	25	2700
	68	6.3×5.8	0.1	300	25	2700
	120	6.3×5.8	0.1	300	25	2700
	150	6.3×7.7	0.1	300	20	3100
	220	6.3×7.7	0.1	440	20	3100
	270	6.3×7.7	0.1	540	20	3100
	470	8×10.5	0.08	940	18	3900
	560	8×10.5	0.08	1120	18	3900
	680	8×10.5	0.08	1360	18	3900
	820	8×12.5	0.08	1640	17	4500
	1000	8×12.5	0.08	2000	17	4500
	1200	10×10.5	0.08	2400	13	5300
	1500	10×12.5	0.08	3000	13	5300
16	22	5×5.8	0.1	300	40	2200
	33	5×5.8	0.1	300	40	2200
	39	5×5.8	0.1	300	40	2200
	39	6.3×5.8	0.1	300	35	2700
	47	6.3×5.8	0.1	300	35	2700
	68	6.3×5.8	0.1	300	35	2700
	82	6.3×5.8	0.1	300	35	2700
	100	6.3×5.8	0.1	320	35	2700
	100	6.3×7.7	0.1	320	25	3100
	150	6.3×7.7	0.1	480	25	3100
	330	8×10.5	0.08	1056	20	3900
	470	8×10.5	0.08	1504	20	3900
	560	8×10.5	0.08	1792	20	3900
	680	8×12.5	0.08	2176	18	4300
	820	10×10.5	0.08	2624	15	5200
	1000	10×12.5	0.08	3200	15	5200
20	22	6.3×5.8	0.1	300	45	2100
	47	6.3×5.8	0.1	300	45	2700
	56	6.3×5.8	0.1	300	45	2700
	100	6.3×7.7	0.1	400	40	3100
	120	6.3×7.7	0.1	480	40	3100
	220	8×10.5	0.08	880	25	3700
	270	8×10.5	0.08	1080	25	3700
	330	8×10.5	0.08	1320	25	3700
	390	8×10.5	0.08	1560	25	3700
	470	8×12.5	0.08	1880	20	4100
	680	10×10.5	0.08	2720	18	4700
	820	10×12.5	0.08	3280	18	4700
25	47	6.3×5.8	0.1	300	50	2100
	56	6.3×5.8	0.1	300	50	2100
	56	6.3×7.7	0.1	300	45	2400
	82	6.3×7.7	0.1	410	45	2400
	150	8×10.5	0.08	750	30	3500
	220	8×10.5	0.08	1100	30	3500
	270	8×12.5	0.08	1350	25	3700
	330	10×10.5	0.08	1650	20	4100
	470	10×12.5	0.08	2350	20	4100