

VP

特点 Features

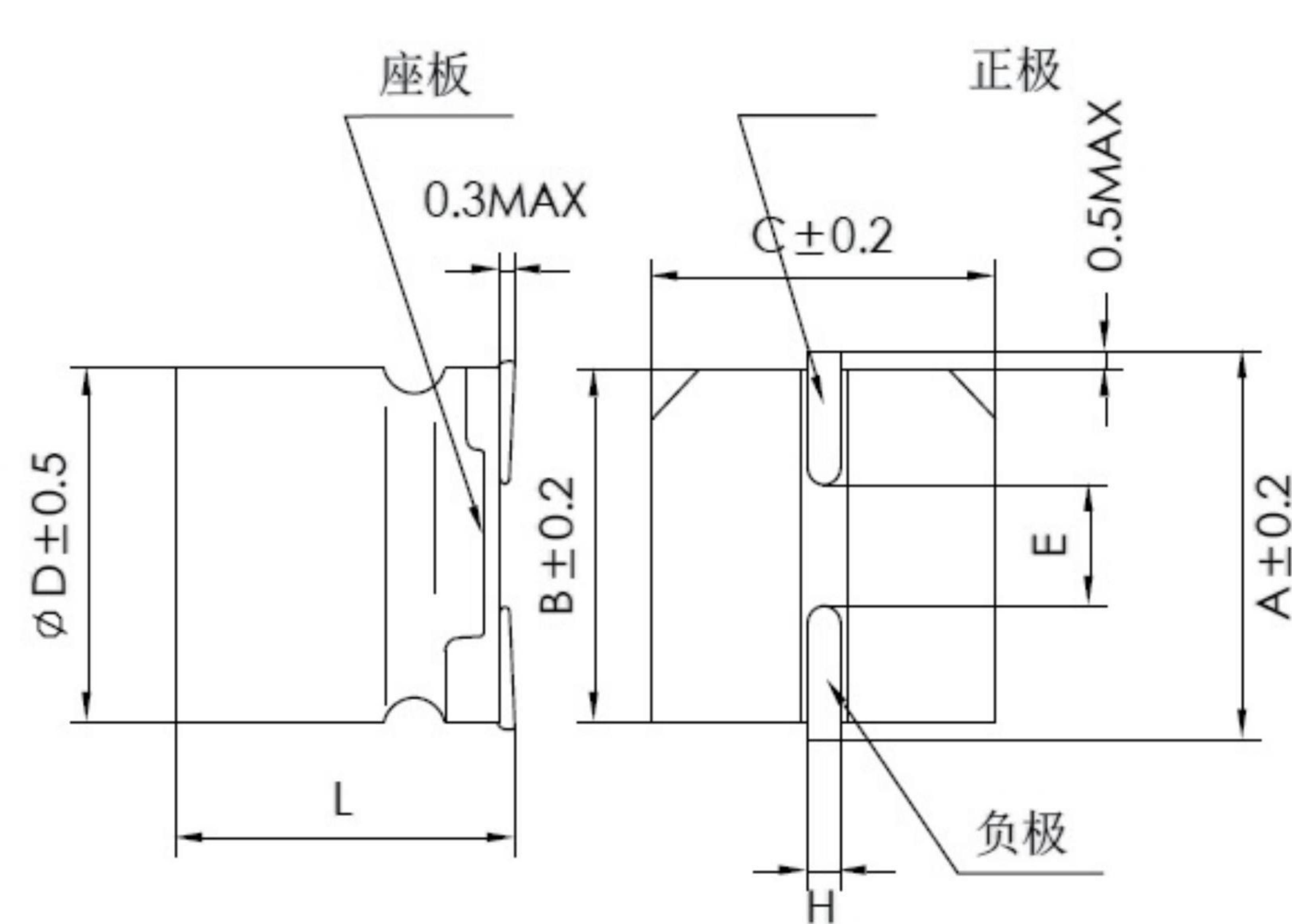
保证105°C 2000小时: Endurance 2000h at 105°C
 额定电压范围: 6.3~50V。Rated Voltage Range: 6.3~50V
 低阻抗、小型化品: Low ESR, Miniaturized Type
 满足RoHS: RoHS Compliant



主要技术性能 Specifications

项目 Items	特性 Performance Characteristics							
类别温度范围 Category Temperature Range	-55°C ~+105°C							
额定电压范围 Rated Voltage(U_R)	6.3~ 50V							
标称电容量范围 Nominal Capacitance Range(C_R)	10 ~ 2200μF						120Hz,+20°C	
标称电容量允许偏差 Allowed Capacitance Tolerance(C_T)	±20%(M)						120Hz,+20°C	
漏电流 Leakage Current(I_L)	$\leq 0.01C_R U_R$ 或者 $3\mu A$ 取较大值 (Whichever is greater)						+20°C after 2 minutes	
损耗角正切值 Tangent of loss angle($\tan\delta$)	U_R	6.3	10	16	25	35	50	
	$\tan\delta$	0.26	0.19	0.16	0.14	0.12	0.10	
低温特性 Characteristics at Low Temperature	U_R	6.3	10	16	25	35	50	
	$Z_{(-25°C)} / Z_{(+20°C)}$	2	2	2	2	2	2	
	$Z_{(-40°C)} / Z_{(+20°C)}$	3	3	3	3	3	3	
	$Z_{(-55°C)} / Z_{(+20°C)}$	4	4	4	3	3	3	
耐久性 Load life	+105°C, 连续施加额定电压 2000 小时, 恢复 16 小时后: After applying rated voltage for 2000 hours at 105°C and then recovery 16 hours:							
	电容量变化率 Capacitance change		±30%初始值以内 Within ±30% of initial value					
	损耗角正切值 $\tan\delta$		≤ 200%初始规定值 Not more than 200% of specified value					
	漏电流 Leakage current		≤ 初始规定值 Not more than specified value					
高温贮存 Shelf life	+105°C, 1000 小时贮存后, 恢复 16 小时后: After storage for 1000 hours at +105°C and then recovery 16 hours:							
	电容量变化率 Capacitance change		±30%初始值以内 Within ±30% of initial value					
	损耗角正切值 $\tan\delta$		≤ 200%初始规定值 Not more than 200% of specified value					
	漏电流 Leakage current		≤ 初始规定值 Not more than specified value					
耐焊接热 Resistance to Soldering Heat	在 250°C 的条件下, 电容器在热板上保持 30 秒, 然后从热板上取出电容器, 让其在室温下恢复, 电容器应满足以下要求: The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.							
	电容量变化率 Capacitance change		±10%初始值以内 Within ±10% of initial value					
	损耗角正切值 $\tan\delta$		≤ 初始规定值 Not more than specified value					
	漏电流 Leakage current		≤ 初始规定值 Not more than specified value					

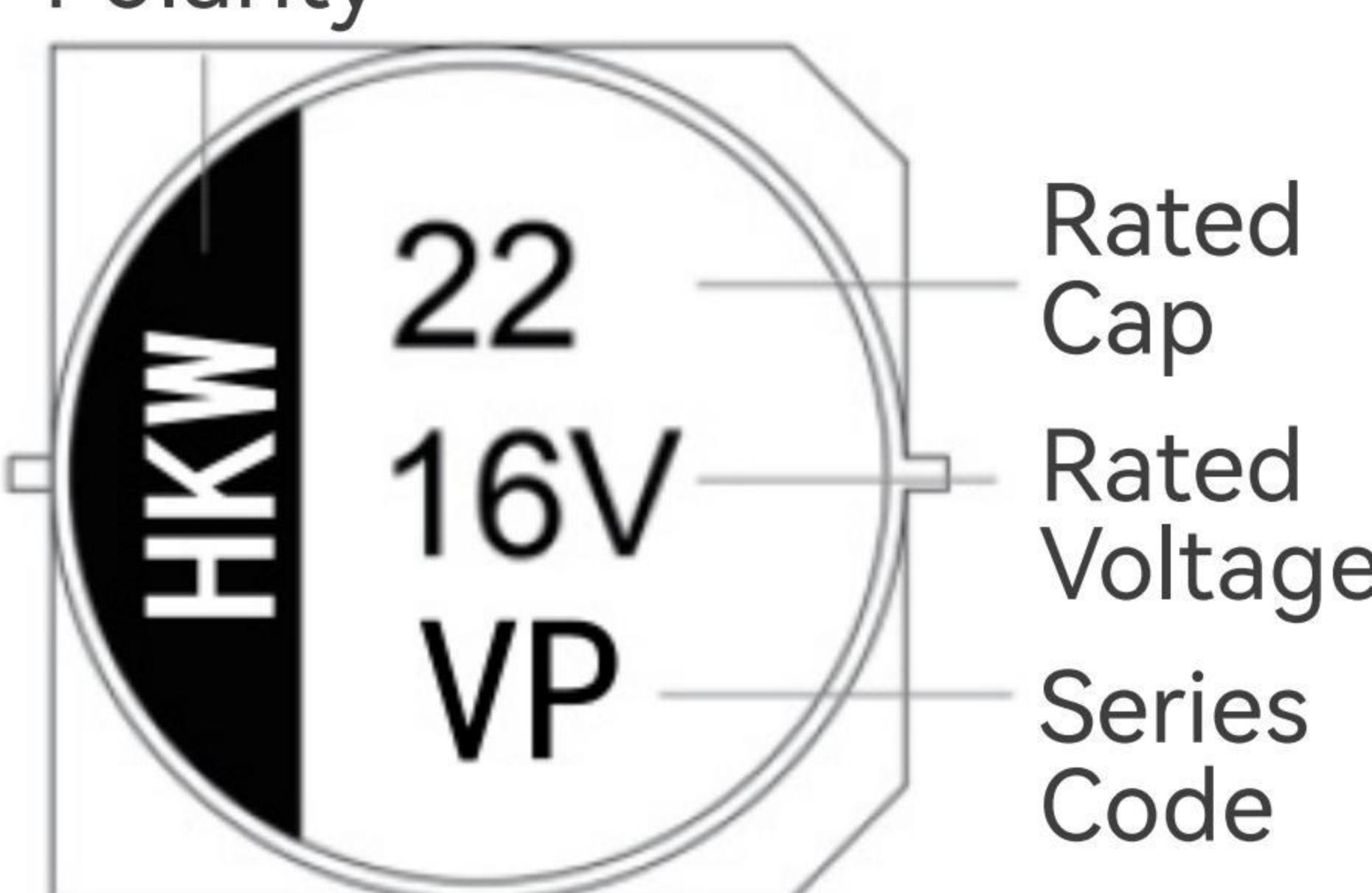
尺寸图 Dimensional drawings



Marking

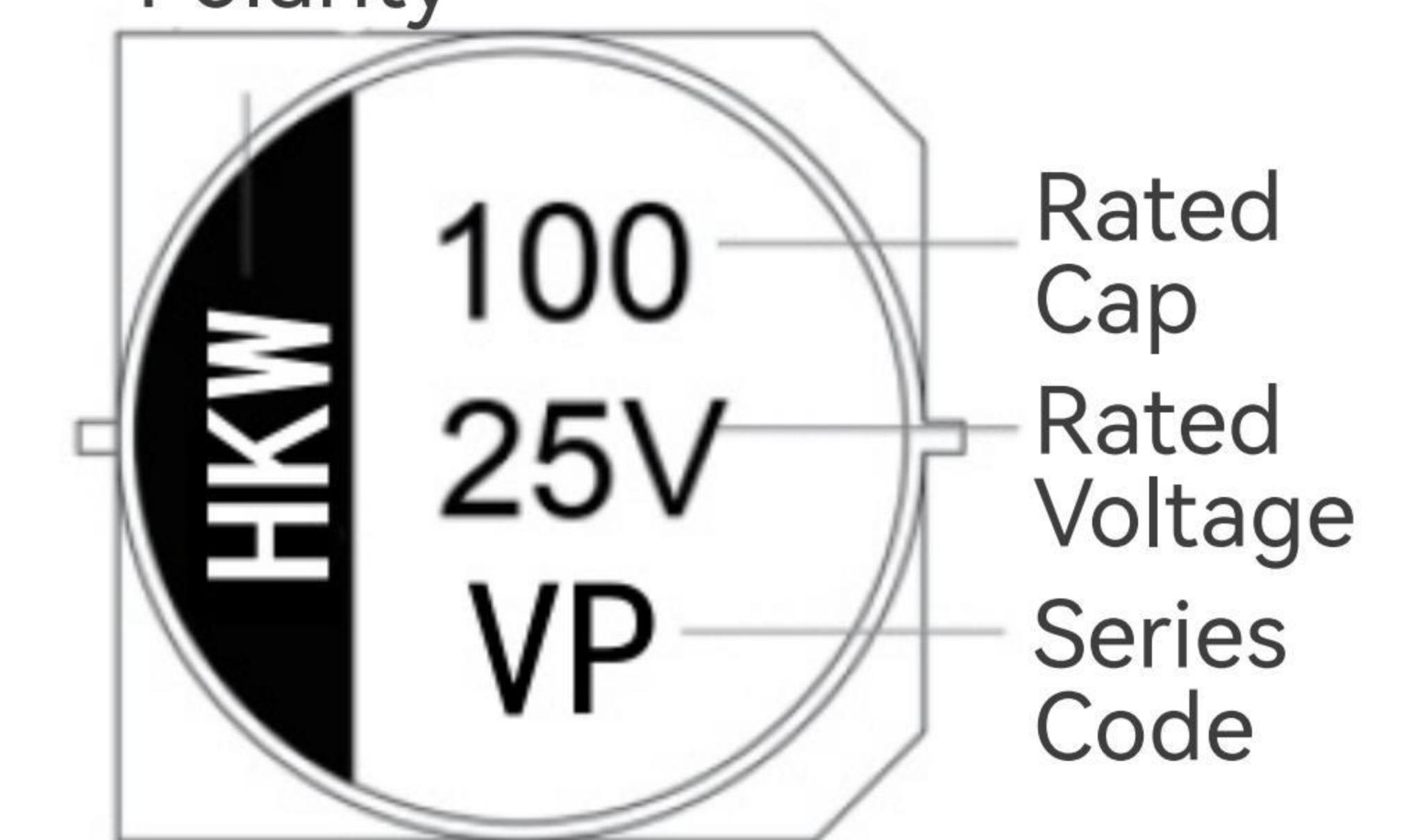
Φ D=4~5mm

Negative
Polarity



Φ D=6.3~10mm

Negative
Polarity



尺寸表 size table

单位 Unit: mm

ΦD	L	A	B	C	E±0.2	H
4	5.8±0.3	5.0	4.3	4.3	1.0	0.5 ~ 0.8
5	5.8±0.3	6.0	5.3	5.3	1.3	
6.3	5.8±0.3	7.3	6.6	6.6	2.2	
6.3	7.7±0.3	7.3	6.6	6.6	2.2	
8	10.5±0.5	9.0	8.3	8.3	3.1	0.8 ~ 1.1
10	10.5±0.5	11.0	10.3	10.3	4.5	

规格特性表 Table of specifications and characteristics

U _R (V) CAP(μF)	6.3V			10V			16V			25V			35V			50V		
	ΦDxL mm*mm	I _{AC,R} 100KHz 105°C mA	ESR _{max} 100KHz 25°C Ω															
10																4*5.8	85	2.3
22													4*5.8	160	0.85	5*5.8	165	0.88
33										4*5.8	160	0.85						
47							4*5.8	160	0.85	5*5.8	240	0.36	5*5.8	240	0.36	6.3*5.8	195	0.68
100	4*5.8	160	0.85	4*5.8	160	0.85	5*5.8	240	0.36	6.3*5.8	300	0.26	6.3*5.8	300	0.26	6.3*7.7	350	0.34
150													6.3*7.7	600	0.16			
220	5*5.8	240	0.36	6.3*5.8	300	0.26	6.3*5.4	150	0.2	6.3*7.7	600	0.16				8*10.5	670	0.18
330	6.3*5.8	300	0.26				6.3*7.7	600	0.16				8*10.5	850	0.08	10*10.5	900	0.12
470				6.3*7.7	600	0.16				8*10.5	850	0.08						
560													10*10.5	1190	0.06			
680	6.3*7.7	600	0.16				8*10.5	850	0.08				10*10.5	1190	0.06			
820										10*10.5	1190	0.06						
1000				8*10.5	850	0.08	10*10.5	1190	0.06	10*10.5	1190	0.06						
1500	8*10.5	850	0.08	10*10.5	1190	0.06												
2200	10*10.5	1190	0.06															

额定纹波电流频率修正系数 Frequency correction factor for ripple current

静电容量 (μF)	频 率 (Hz)	120	1K	10K	100K
10-150		0.40	0.75	0.90	1.0
220-560		0.50	0.85	0.94	1.0
680-2200		0.60	0.87	0.95	1.0