

VH 型片式铝电解电容

VH Series Chip Type Aluminum Electrolytic Capacitors

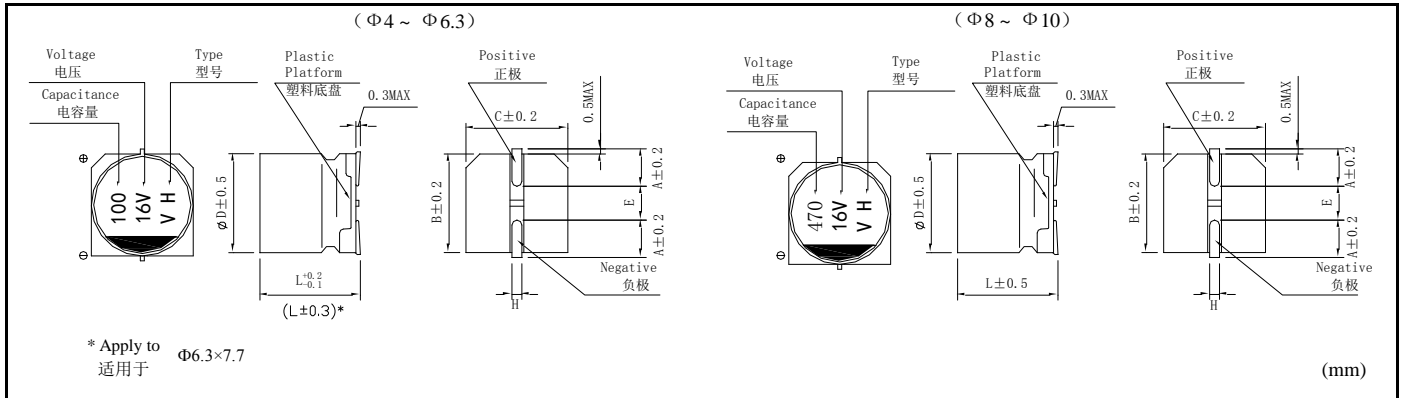
特点 Features

- 产品直径 Case diameter: : Φ 4mm – Φ 10mm
- 适用于再流焊。 Reflow soldering is available.
- 适用于高密度表面组装。 Available for high density surface mounting.
- 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℃(6.3-100V), -40℃ ~+105℃(160-400V)												
额定电压范围 Rated Voltage Range	6.3V ~ 400V												
标称容量范围 Nominal Capacitance Range	1 ~ 1000 μ F												
标称容量允许偏差 Nominal Capacitance Tolerance	\pm 20% (20℃, 120Hz)												
漏电流 Leakage Current	6.3to100V						160-400V						
	I \leq 0.01C _R V _R or 3(μ A), 取较大者 (2 分钟) C _R : 标称容量 (μ F) U _R 额定电压 (V) I \leq 0.01C _R V _R or 3(μ A) Whichever is greater(at 20℃, after 2 minutes)						I \leq 0.04 C _R V _R +100(μ A) (20℃, 1 分钟) C _R : 标称容量 (μ F) U _R 额定电压 (V) I \leq 0.04C _R V _R +100(μ A) Whichever is greater(at 20℃, after 1 minutes)						
损耗角正切 (tg δ) Dissipation Factor (Max) 20℃, 120Hz	U _R (V)	6.3	10	16	25	35	50	63	80	100	120-250	350-400	
	tg δ	0.32	0.24	0.20	0.16	0.13	0.12	0.12	0.11	0.10	0.15	0.20	
耐久性 Load Life	+105℃施加额定电压 2000 小时后, 电容器应满足以下要求: After 2000 hours . application of rated voltage at 105℃, the capacitor shall meet the following requirement:												
	容量变化率 Capacitance Change	\pm 30%初始值以内(160-400V 为 \pm 20%) Within \pm 30% of the initial value (\pm 20% of 160-400V)											
	损耗角正切 Dissipation Factor	\leq 300%初始规定值(160-400V 为 \leq 200%) Not more than 300% of the initial specified value(\leq 200% of 160-400V)											
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value											
高温贮存 Shelf Life	+105℃ 贮存 1000 小时后, 加额定工作电压 30 分钟, 电容器应满足以上耐久性要求 After storage for 1000 hours at +105℃, U _R to be applied for 30 minutes ,the capacitors shall meet the requirement of load life above												
低温特性 Low Temperature Stability 阻抗比 Impedance Ratio (120Hz)	U _R (V)	6.3	10	16	25	35	50	63	80	100	160-250	350-400	
	Z(-55℃)/Z(+20℃)	4	4	3	3	3	2	3	4	4	-	-	
	Z(-40℃)/Z(+20℃)	-	-	-	-	-	-	-	-	-	6	10	
耐焊接热 Resistance to Soldering Heat	在 250℃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℃ for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement.												
	容量变化率 Capacitance Change	\pm 10%初始值以内 Within \pm 10% of the initial value											
	损耗角正切 (tg δ) Dissipation Factor	\leq 初始规定值 Not more than the initial specified value											
	漏电流 Leakage Current	\leq 初始规定值 Not more than the initial specified value											

尺寸图 Dimensions



	4 × 5.4	5 × 5.4	6.3 × 5.4	6.3 × 7.7	8 × 6.5	8 × 10.5	10 × 10.5	8 × 12.5	10 × 12.5
A	1.8	2.1	2.4	2.4	2.9	2.9	3.2	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	8.3	10.3	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	8.3	10.3	8.3	10.3
E	1.0	1.3	2.2	2.2	2.3	3.1	4.5	3.1	4.5
L	5.4	5.4	5.4	7.7	6.5	10.5	10.5	12.5	12.5
H	0.5 ~ 0.8					0.8 ~ 1.1			

注：160-400 产品 L 值公差为 ±1

■ 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

电压 WV (Vdc)	容量 Ca (μA)	产品尺寸	纹波电流	电压 WV (Vdc)	容量 Ca (μA)	产品尺寸	纹波电流
6.3	22	4*5.4	22	16	10	4*5.4	18
	33	4*5.4	26		22	5*5.4	30
	47	5*5.4	36		33	5*5.4	32
	100	5*5.4	38		47	6.3*5.4	50
	220	6.3*5.4	86		100	6.3*5.4	60
	330	6.3*7.7	105		220	6.3*7.7	100
	470	8*10.5	340		330	8*10.5	290
	680	8*10.5	350		470	8*10.5	320
	1000	10*10.5	495		680	10*10.5	470
	1500	10*12.5	560		1000	10*12.5	510
10	2200	10*12.5	580	1200	10*12.5	520	
	25	10	4*5.4	20	10	5*5.4	21
		22	5*5.4	27	22	5*5.4	23
		33	5*5.4	35	47	6.3*5.4	38
		47	5*5.4	34	100	6.3*7.7	66
		100	6.3*5.4	60	220	8*10.5	240
		220	6.3*7.7	105	330	10*10.5	410
		330	8*10.5	290	470	10*10.5	450
		470	8*10.5	320	560	10*12.5	500
		680	10*10.5	395	680	10*12.5	510
1000		10*10.5	450	50	1	4*5.4	6.3
1500	10*12.5	520	2.2		4*5.4	11	
35	4.7	4*5.4	16		3.3	4*5.4	14
	10	5*5.4	27		4.7	5*5.4	19
	22	6.3*5.4	44				
	33	6.3*5.4	48				

	47	6.3*7.7	80		10	6.3*5.4	36
	100	8*10.5	230		22	6.3*5.4	32
	220	10*10.5	260		33	6.3*7.7	60
	330	10*10.5	450		47	8*10.5	210
	470	10*12.5	500		100	8*10.5	230
	560	10*12.5	510		220	10*10.5	375
63	10	6.3*5.4	26	80	22	8*10.5	100
	22	6.3*7.7	48		33	10*10.5	100
	33	8*10.5	140		47	10*10.5	150
	47	8*10.5	170		100	10*12.5	180
	100	10*10.5	310				
	150	10*12.5	330				
100	10	6.3*7.7	24	160	10	8*10.5	57
	22	8*10.5	100		15	8*12.5	65
	33	10*10.5	150		22	10*12.5	80
	47	10*12.5	180	200	10	10*10.5	75
	56	10*12.5	180		15	10*12.5	81
					22	10*12.5	83
250	3.3	8*10.5	36	400	2.2	8*10.5	29
	4.7	8*10.5	42		3.3	8*10.5	30
	6.8	8*10.5	64		4.7	8*12.5	40
	8.2	10*10.5	70		5.6	10*12.5	51
	10	10*10.5	72		6.8	10*12.5	52
					8.2	10*12.5	55
					10	10*12.5	60

I_r=Rated ripple current (mA) (105°C, 120Hz) I_r=额定纹波电流 (mA) (105°C, 120Hz)

■ Frequency coefficient of ripple current 额定纹波电流的频率系数

Frequency 频率	50Hz	120Hz	300Hz	1KHz	10K~100Hz
Coefficient 系数	0.70	1.00	1.17	1.36	1.50

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