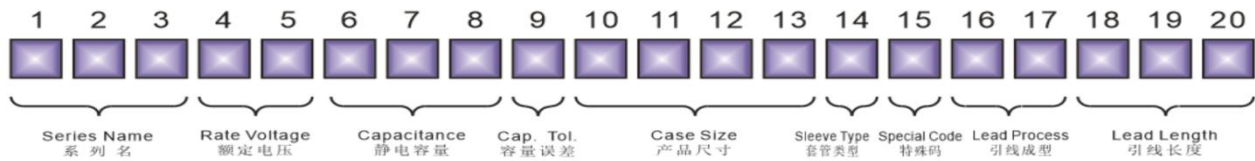


EXPLANATION OF PART NUMBERS 产品编码规则



(1-3)		(4-5)		(6-8)		(9)		(10~13)		(14)	
Series 系列		Voltage (W.V) 额定电压	Code 代码	Capacitance (μF) 静电容量	Code 代码	Cap. Tolerance (%) 容量误差	Code 代码	Size φDxL 产品尺寸	Code 代码	Sleeve Material 套管材料	Code 代码
VCS		4	0G	0.1	104	+5	J	4x5.4	0405	Sleeveless	C
VCT		6.3	0J	0.22	224	-5		5x5.4	0505	PVC	V
VCH		10	1A	0.33	334	+10	K	5x5.7	0506	PET	E
VCR		16	1C	0.47	474	-10		6.3x4.5	0604		
VGW		25	1E	1	105	+15	L	6.3x5.4	0605		
VDV		35	1V	2.2	225	-15		6.3x5.7	0606		
UT		50	1H	3.3	335	+20	M	6.3x7.7	0607		
VT		63	1J	4.7	475	-20		6.3x7.9	0609		
RVT		80	1K	10	106	+30	N	8x6.5	0806		
		100	2A	22	226	-30		8x10	0810		
		125	2B	33	336	+20	V	8x10.5	0810		
		160	2C	47	476	-10		10x10	1010		
		180	2Z	68	686	+30	Q	10x10.5	1010		
		200	2D	100	107	-10					
		220	2P	220	227	+50	T				
		250	2E	330	337	-10					
		315	2F	470	477	+50	S				
		330	2L	680	687	-20					
		350	2V	1000	108	+80	Z				
		400	2G	2200	228	-20					
		420	2Q	3300	338	+20	R				
		450	2W	4700	478	-0					

(15)		(16~17)	
Special Code	Code 代码	Lead Process 端子加工方式	Code 代码
Normal 正常品	N	Radial Bluk 引线型长脚散装	RB
Wire Diameter CP线径特殊	D	V-Chip Type 贴片型	VC
Pitch 脚距特殊	P	Snap-in Type 牛角型	SN
Raised gum 凸台橡胶	C	Screw Terminal Type 螺栓型	ST

(16~17)		(18~20)	
		Lead length 引脚长度	Code 代码
		lead length after cun is 2.8mm 脚长2.8毫米	028
		lead length after cun is 3.0mm 脚长3.0毫米	030
		lead length after cun is 3.2mm 脚长3.2毫米	032
		lead length after cun is 10.0mm 脚长10.0毫米	100

		(16~17)	
		Lead Process 端子加工方式	Code 代码
Cutting 剪脚	Straight Cut 直接剪脚		CC
	Forming cut 成型剪脚		FC
	Forming cut (φ4~5mm) 成型剪脚		CM
	Kinked Straight Cut 弯曲直脚剪脚		SC
	Kinked Forming Cut 弯曲成型剪脚		FS
	Bending (Right) 右弯曲成型剪脚		BR
	Bending (Left) 左弯曲成型剪脚		BL
Taping 编带	Forming Taping 成型编带		TF
	Straight Taping 直接编带		TS

(18~20)	
Lead length 引脚长度	Code 代码
lead length after cun is 2.8mm 脚长2.8毫米	028
lead length after cun is 3.0mm 脚长3.0毫米	030
lead length after cun is 3.2mm 脚长3.2毫米	032
lead length after cun is 10.0mm 脚长10.0毫米	100

Wide temperature Standard
宽温标准品

- 105°C, 1000~2000 hours assured.
105°C, 负荷寿命 1000~2000 小时。
- Case diameter $\phi 4\text{mm} \sim \phi 10\text{mm}$.
产品直径 $\phi 4\text{mm} \sim \phi 10\text{mm}$ 。
- Available for high density surface mounting.
适用于高密度表面组装。
- High stability and reliability.
性能稳定, 可靠性高。



Items 项目	Characteristics 主要特性									
Rated Voltage Range 额定工作电压范围	6.3 ~ 100V _{dc}			160 ~ 400V _{dc}			450V _{dc}			
Category Temperature Range 使用温度范围	-55 ~ +105℃			-40 ~ +105℃			-25 ~ +105℃			
Capacitance Tolerance 静电容量允许偏差	±20% (M), at 20℃, 120Hz									
Leakage Current (at 20℃, Application Rated Voltage) 漏电流(20℃环境下施加额定工作电压)	Rated Voltage 额定工作电压	6.3 ~ 100V _{dc}								
	Time 时间	After 2 minutes 施加电压 2 分钟后								
	Case Size 产品尺寸	Φ4 ~ Φ10								
	Leakage Current 漏电流	≤0.01CV or 3uA, whichever is greater ≤0.01CV or 3uA, 取较大值								
Where, I : Max. leakage current (漏电流, uA), C : Nominal capacitance (静电容量, uF), V : Rated voltage (额定电压 V)										
Dissipation Factor (Tanδ, at 20℃, 120Hz) 损耗角正切值 (测试条件为 20℃, 120Hz)	Rated voltage (V) 额定工作电	6.3	10	16	25	35	50	63	100	
	Φ4 ~ Φ10	0.30	0.26	0.22	0.18	0.16	0.14	0.14	0.14	
When nominal capacitance exceeds 1,000uF, add 0.02 to the value above for each 1,000uF increase. 静电容量大于1000uF, 每增加1000uF, 损耗角正切增加0.02										
Low Temperature Characteristics (Max. Impedance Ratio, 120Hz) 低温特性最大阻抗比	Rated voltage (V) 额定工作电压	6.3	10	16	25	35	50	63	100	
	Z(-25℃)/Z(20℃)	Φ4 ~ Φ10	5	4	3	2	2	2	3	
	Z(-55℃)/Z(20℃)	Φ4 ~ Φ10	8	6	4	4	3	3	4	
Endurance 耐久性	The following specification shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the ripple current is applied for the specified period of time at 105℃. 在 105℃环境中, 不超过额定电压的范围内叠加额定纹波电流, 连续加载规定时间的额定电压后, 待温度恢复到 20℃进行测量时, 应满足以下要求。									
	Test Time 测试时间	1000Hrs					2,000Hrs			
	Case Size 产品尺寸	Φ4 ~ Φ5x5.7					Φ6.3x5.4 ~ Φ10x10.5			
	Capacitance Change 静电容量变化率	Within ±30% initial value 初始值的±30%以内					Within ±25% initial value 初始值的±25%以内			
	Dissipation Factor 损耗角正切	≤300% of specified value 不大于规范值的 300%					≤300% of specified value 不大于规范值的 300%			
	Leakage Current 漏电流	≤The initial specified value 不大于规范值								
Shelf Life 高温贮存	After storage for 1000 hours at 105℃ with no voltage applied and then being stabilized at +20℃, capacitors shall meet the limits specified in Endurance. (Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of IEC 60384-4.) 在 105℃环境中, 无负荷放置 1,000 小时后待温度恢复到 20℃, 进行试验前处理(IEC 60384-4 4.1 项)后进行测量时, 电容器的特性符合高温负荷特性中所列的规格值。									

[illegible]

VCS Series

Standard ratings 标准品一览表

uF \ WV	6.3v (0J)		10v (1A)		16v (1C)		25v (1E)		35v (1V)		50v (1H)		63v (1J)		100v (2A)	
	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.	ΦD x L	R.C.
0.1											4x5.4	0.7	4x5.4	0.7		
0.22											4x5.4	1.6	4x5.4	1.6		
0.33											4x5.4	2.5	4x5.4	2.5		
0.47											4x5.4	3.5	4x5.4	3.5		
1											4x5.4	8	4x5.4	8	4x5.4	10
2.2											4x5.4	12	4x5.4	12	5x5.4	13
3.3									4x5.4	16	4x5.4	14	5x5.4	17	5x5.4	13
4.7							4x5.4	22	4x5.4	22	4x5.4	22	5x5.4	23	5x5.7	20
											5x5.4	23			6.3x5.7	30
10					4x5.4	25	4x5.4	25	4x5.4	25	5x5.4	35	6.3x5.4	32	6.3x5.7	35
							5x5.4	28	5x5.4	30	6.3x5.4	40	6.3x7.7	60	6.3x7.7	50
22	4x5.4	25	4x5.4	25	4x5.4	29	5x5.4	28	5x5.4	35	6.3x5.4	42	6.3x5.7	45	6.3x7.9	60
			5x5.4	40	5x5.4	39	6.3x5.4	55	6.3x5.4	60	6.3x7.7	65	6.3x7.7	65	8x10	100
33	4x5.4	26	4x5.4	26	5x5.4	40	5x5.4	55	6.3x5.4	60	6.3x7.7	90	8x10	140	8x10	120
	5x5.4	45	5x5.4	45	6.3x5.4	70	6.3x5.4	65								
47	4x5.4	31	4x5.4	31	5x5.4	42	5x5.7	42	6.3x5.4	60	6.3x5.7	70	6.3x7.9	90	10x10	170
	5x5.4	46	5x5.4	46	6.3x5.4	70	6.3x5.4	65	6.3x7.7	100	6.3x7.7	110	8x10	170		
100	5x5.4	46	5x5.4	60	5x5.7	45	6.3x5.7	90	6.3x5.7	90	6.3x7.9	120	10x10	310		
	6.3x5.4	75	6.3x4.5	70	6.3x5.4	70	6.3x7.7	100	6.3x7.7	105	8x10	240				
150	5x5.7	47	6.3x5.4	75	6.3x5.7	75	6.3x7.7	120	8x10	260	10x10	300				
	6.3x5.4	75			6.3x7.7	120	8x6.5	160								
220	5x5.7	47	6.3x5.4	80	6.3x5.7	110	6.3x7.9	140	8x10	260	10x10.5	330				
	6.3x5.4	75	6.3x7.7	120	6.3x7.7	120	8x10	270	10x10	350						
330	6.3x5.7	110	6.3x7.7	200	6.3x7.9	170	8x10	290	10x10	370						
	6.3x7.7	140			8x10	290	10x10	380								
470	6.3x7.7	140	6.3x7.9	200	6.3x7.9	200	8x10.5	320	10x10.5	380						
	8x10	290	8x10	320	8x10	320	10x10	380								
680	8x10	360	8x10	360	8x10	360	10x10.5	380								
					10x10	380										
1000	8x10	290	10x10.5	410	10x10.5	410										
	10x10	410														

Note1: Case size ΦD x L(mm), ripple current (mA, rms) at 105℃, 120Hz. 尺寸ΦD x L(mm), 纹波电流於 105℃, 120Hz

Note2: Produce custom product too, which are not found in these tables. 客户定制品不在标准品一览表内

Scope 概述

Conformance Standard 参考标准

This specification covers “VCS” series” miniature single-ended aluminum electrolytic capacitors. This approval sheet consulted the institute of andIEC60384-4. 本承认书规定了 VCS 系列径向引线引出铝电解电容器的技术规范。并参考 IEC60384-1 和 IEC60384-4 制定。

Operating Temperature Range 工作温度范围

Operating temperature range is the range of ambient temperature at which the capacitor can be operated continuously at rated voltage. 工作温度范围是电容器在施加额定工作电压条件下，可以长期可靠工作的环境温度范围。

Rated Voltage 额定电压	Temperature 温度范围
6.3 ~ 100V.DC	-55 ~+105℃

Condition of test 测试环境

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows. 如果没有其它规定，标准的测试、检验环境条件如下所示：

Ambient temperature 环境温度：15℃ to 35℃

Relative humidity 相对湿度：45% to 75%

Air pressure 大气压力：86Kpa to 106Kpa

If there may be doubt on the results, measurements shall be made within the following limits 如果对测试结果有异议，可以在以下条件测试：

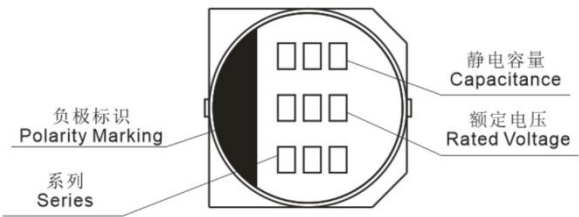
Ambient temperature 环境温度：20±1℃

Relative humidity 相对湿度：63% to 67%

Air pressure 大气压力：86Kpa to 106Kpa

Marking 印刷

a. The following items shall be marked on each capacitor 电容顶部印刷如下：



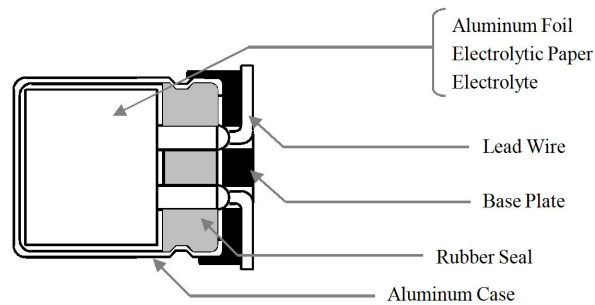
b. Marking color 印刷颜色：Black 黑色

Ripple Current Frequency Coefficient 纹波电流频率因子

Frequency 频率 (Hz)			60Hz	120Hz	300Hz	1KHz	10KHz~
6.3 ~ 100v	Φ4 ~Φ10	0.1 ~ 1500uF	0.70	1.00	1.17	1.36	1.50

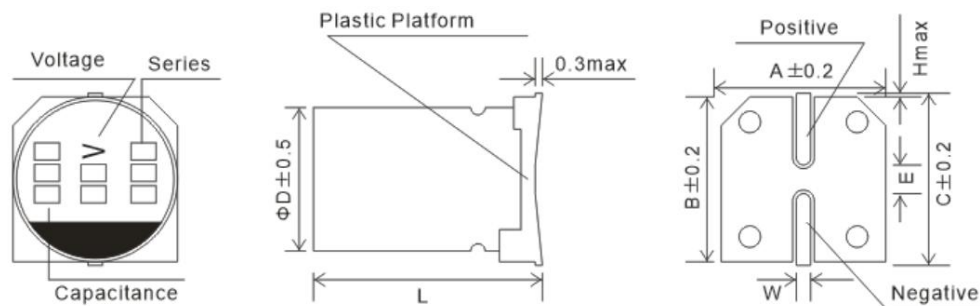
Construction & Drawing 结构与外形图

Construction 结构:



Parts Name 部件名称		Materials 材质
1	Aluminum Foil 铝箔	Aluminum 铝
2	Electrolytic Paper 电解纸	Manila Hemp 马里拉麻/西班牙草纸浆
3	Electrolyte 电解液	Ethylene Glycol, Gamma-Butyrolactone γ -丁内酯
4	Aluminum Case 镀膜铝壳	Aluminum、PET 铝及 PET
5	Rubber Seal 封口橡胶	Synthetic Rubber (IIR) 树脂橡胶
6	Lead Wire 引线	Bi Contained Tin Plate, Tinned Copper-Clad Steel Wire 镀锡铜包钢线
7	Base Plate 底座	Thermo-plastic Resin 热塑性树脂

Diagram of Dimensions 外形尺寸:

[illegible]