



VEJ Series

Features/Application

- $4\phi \sim 18\phi$ 、 105°C 、2,000 hrs life time
- Suitable for surface-mount high-density PCB designs
- RoHS compliant
- Compliant with AEC-Q200



Marking color: Black

Specification

Item	Feature													
Operating temperature range	6.3 ~ 100V	160 ~ 400V	450V											
	-55℃ ~ +105℃	-40℃ ~ +105℃	-25℃ ~ +105℃											
Rated capacitance tolerance	± 20% (120 Hz, 20℃)													
value														
Leakage current(20℃)	额定电压 Rated voltage	6.3 ~ 100V	160 ~ 450V											
	测试时间 Test time	2 分钟后 after 2 minutes	5 分钟后 after 5 minutes											
	制品尺寸 size	4 ~ 10φ	12.5 ~ 18φ											
	漏电流 leakage current	I = 0.01CV 或 3μA 之中任一个较大值以下	I = 0.03CV 或 4μA 之中任一个较大值以下 below any of the larger values											
I = 漏电流(μA/微安)、C = 额定静电容量(μF/微法拉)、V = 额定直流工作电压(V/伏特) Rated DC operating voltage														
Loss tangent(120 Hz, 20℃)	rated voltage													
	leakage current													
	Rated capacitance													
Temperature characteristics (120 Hz)	额定电压	6.3	10	16	25	35	50	63	100	160	200	250	400	450
	4 ~ 10φ	0.45	0.35	0.28	0.18	0.16	0.14	0.12	0.12	-	-	-	-	-
Durability	When the rated capacitance is greater than 1000μF, an additional 0.02 is required for every additional 1000μF	当额定静电容量大于 1,000 微法拉时, 每增加 1,000 微法拉需加 0.02.												
	阻抗比	阻抗比不可大于下表所列数值 The impedance ratio must not exceed the values listed in the table below												
	impedance ratio	6.3	10	16	25	35	50	63	100	160	200	250	400	450
	rated voltage	6.3	10	16	25	35	50	63	100	160	200	250	400	450
High temperature no-load characteristics	Z(-25℃)	φD<12.5	4	4	3	2	2	2	2	3	-	-	-	-
	/Z(+20℃)	φD≥12.5	5	4	3	2	2	2	2	2	3	3	6	6
	Z(-55/-40℃)	φD<12.5	12	8	6	4	3	3	3	4	-	-	-	-
	/Z(+20℃)	φD≥12.5	10	8	6	4	3	3	3	3	6	6	10	-
Ripple current and frequency correction factor	Guaranteed lifespan	2,000hrs												
	rate of change of capacitance	φD ≤ 6.3 mm: ≤ Initial value ± 25%; φD ≥ 8 mm: ≤ Initial value ± 20%												
	Loss tangent	φD ≤ 6.3 mm: ≤ Initial value 300%; φD ≥ 8 mm: ≤ Initial value 200%												
	Leakage current	≤ Initial value												
*After supplying the rated voltage for 2,000 hours in an environment of 105℃, the above requirements must be met when the product is returned to an environment of 20℃ for measurement.Guaranteed lifespan: 1,000 hours; other test items are the same as durability.Rated voltages of 160 ~ 450V require voltage compensation before measurement (according to JISC5101-44.1).														
Capacitance	频率(Hz)	50	120	1k	10k									
	静电容量(μF/微法拉)	≤ 1,000	0.80	1.00	1.25	1.40								
	1,000<静电容量≤8,200	0.85	1.00	1.15	1.25									

尺寸图

图 1

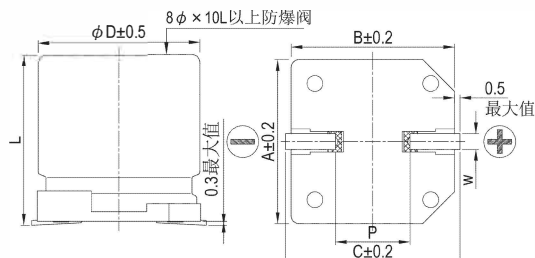
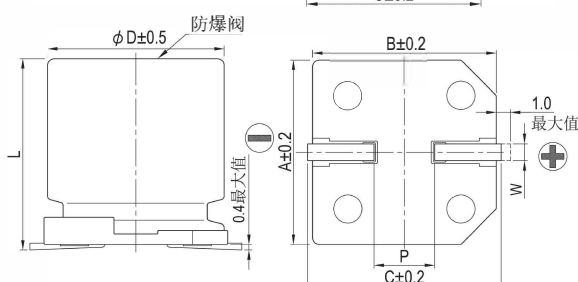


图 2



制品各项寸法

Unit:mm

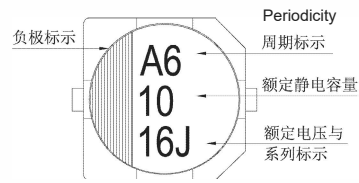
单位:毫米

ϕD	L	A	B	C	W	P ± 0.2	图号
4	5.7 ± 0.3	4.3	4.3	5.1	$0.5 \sim 0.8$	1.0	1
5	5.7 ± 0.3	5.3	5.3	5.9	$0.5 \sim 0.8$	1.5	1
6.3	5.7 ± 0.3	6.6	6.6	7.2	$0.5 \sim 0.8$	2.0	1
6.3	7.7 ± 0.3	6.6	6.6	7.2	$0.5 \sim 0.8$	2.0	1
8	6.5 ± 0.3	8.3	8.3	9.0	$0.5 \sim 0.8$	2.3	1
8	10 ± 0.5	8.3	8.3	9.0	$0.7 \sim 1.1$	3.1	1
10	7.7 ± 0.3	10.3	10.3	11.0	$0.7 \sim 1.3$	4.7	1
10	10 ± 0.5	10.3	10.3	11.0	$0.7 \sim 1.3$	4.7	1
12.5	13.5 ± 0.5	13.0	13.0	13.7	$1.1 \sim 1.4$	4.4	2
12.5	16 ± 0.5	13.0	13.0	13.7	$1.1 \sim 1.4$	4.4	2
16	16.5 ± 0.5	17.0	17.0	18.0	$1.1 \sim 1.4$	6.4	2
16	21.5 ± 0.5	17.0	17.0	18.0	$1.1 \sim 1.4$	6.4	2
18	16.5 ± 0.5	19.0	19.0	20.0	$1.1 \sim 1.4$	6.4	2
18	21.5 ± 0.5	19.0	19.0	20.0	$1.1 \sim 1.4$	6.4	2

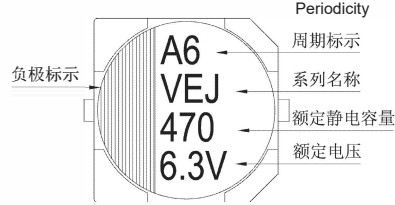


标示

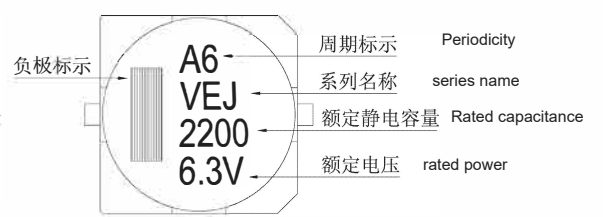
$\phi D \leq 6.3 \text{ mm}$



$\phi D = 8 \sim 10 \text{ mm}$



$\phi D \geq 12.5 \text{ mm}$



制品尺寸与容许纹波电流一览表

尺寸: 直径(ϕD) $\times$ 长度(L), (毫米/mm)

容许纹波电流: 毫安/均方根值(mA/rms), 120 赫兹(Hz), 105℃

额定电压 V _{DC}		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
静电容量 (μF /微法拉)	内容	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA	ϕ D×L	mA
1	010											4×5.7	8	4×5.7	8		
2.2	2R2											4×5.7	12	4×5.7	12		
3.3	3R3											4×5.7	14	5×5.7	17		
4.7	4R7							4×5.7	17	4×5.7	17	5×5.7	20	6.3×5.7	22		
10	100					4×5.7	20	4×5.7	20	5×5.7	27	6.3×5.7	32	6.3×5.7 8×6.5	32 51		
22	220	4×5.7	22	4×5.7	22	5×5.7	30	5×5.7	30	6.3×5.7	44	6.3×5.7 8×6.5	38 67	6.3×7.7	58	8×10	100
33	330	5×5.7	34	5×5.7	34	5×5.7	34	6.3×5.7	46	6.3×5.7 8×6.5	46 76	6.3×7.7	65	8×10	140	10×10	150
47	470	5×5.7	38	5×5.7	38	6.3×5.7	48	6.3×5.7 8×6.5	48 79	6.3×7.7	80	6.3×7.7	70	8×10	170	12.5×13.5	250
100	101	6.3×5.7	69	6.3×5.7 8×6.5	69 90	6.3×5.7	69	6.3×7.7	100	8×10	240	8×10	210	10×10	310	12.5×13.5	380
220	221	6.3×7.7 8×6.5	120 120	6.3×7.7	120	6.3×7.7	120	8×10 10×7.7	270 270	8×10	270	10×10	330	12.5×13.5	470	16×16.5	450
330	331	8×10	290	8×10	290	8×10 10×7.7	290 290	8×10	290	10×10	370	12.5×13.5	490	16×16.5	650	18×16.5 16×21.5	590 750
470	471	8×10	320	8×10 10×7.7	320 320	10×10	380	10×10	380	12.5×13.5	520	12.5×16	550	16×16.5	700	18×21.5	980
1,000	102	10×10	410	10×10	410	12.5×13.5	500	12.5×16	550	16×16.5	800	18×16.5	990				
2,200	222	12.5×13.5	680	12.5×13.5	680	16×16.5	900	16×16.5	900	18×16.5	1,050						
3,300	332	12.5×16	850	16×16.5	950	16×16.5	950	18×16.5 16×21.5	1,150 1,200								
4,700	472	16×16.5	1,000	16×16.5	1,000	18×16.5 16×21.5	1,225 1,275	18×21.5	1,300								
6,800	682	18×16.5 16×21.5	1,290 1,350	18×16.5 16×21.5	1,290 1,350												
8,200	822	18×21.5	1,450	18×21.5	1,450												

额定电压 V _{DC}	静电容量 (μF /微法拉)	内容	160V (2C)		200V (2D)		250V (2E)		400V (2G)		450V (2W)	
			$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
4.7	4R7						12.5×13.5	65	12.5×13.5	45	12.5×13.5	45
10	100				12.5×13.5	80	12.5×13.5	70	12.5×13.5	50	12.5×16	75
22	220				12.5×16	110	12.5×13.5	105	16×16.5	85	16×16.5	85
33	330	12.5×13.5	95	12.5×16	120	16×16.5	180	18×16.5	100	18×16.5	100	
47	470	16×16	240	16×16.5	220	16×16.5	220	18×21.5	130			
100	101	16×16.5	250	18×16.5	280	18×21.5	290					

产品编码说明

VEJ系列 470微法拉 $\pm 20\%$ 6.3V 编带 8 $\phi \times 10L$ Application
VEJ **471** **M** **0J** **TR** - **0810**
series name Rated capacitance tolerance Rated power Packing Terminal size 应用别

注: 如需了解更详细介绍, 请参阅目录第106页"贴片型产品编码说明"。