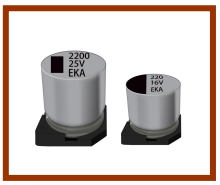
鋁電解電容器

Aluminum Electorlytic Capacitor

VKE Series 片式铝电解电容器 125℃耐高温品

Higher Temperature 125℃ Aluminum Electorlytic Capacitor of V-chip Type



- 工作温度范围宽(-40℃～+125℃) 1000~5000 小时
- 适用于回流焊
- 适用于高密度表面组装
- 适用于汽车电装品的高温度用途
- 符合 AEC-Q200。
- Operating over wide temperature range 1000~5000 hours.
- Reflow soldering is available.
- Suitable for high density surface assembly.
- Suitable for high temperature application of car denso.
- Compliance with AEC-Q200.

■主要技术性能 Specifications

使用温度范围 Operating Temperature Range	-40～+125℃
额定电压范围 Rated Voltage Range	10~100V DC
标称电容量允许偏差 Capacitance Tolerance	±20% (120Hz, 20℃)
漏电流 (20℃) Leakage Current	I≤0.01CV(μA)或 3μA 取较大者,(2 分钟) I≤0.01CV(μA) or 3μA Whichever is greater (after 2 minutes) I=Leakage Current(μA) C=Capacitance(μF) V=Rated DC Working Voltage(V)
损耗角正切值 Dissipation Factor (120Hz 20℃)	

Rated Voltage	10	16	25	35	50	63	80	100
Tanδ (max)	0.24	0.20	0.16	0.14	0.14	0.12	0.12	0.10
0.02 is added to every 1000μF increase over 1000μF								

温度特性 (120Hz)
Temperature Characteristics
Impedance Ratio (120Hz)

Rated Voltage	10	16	25	35	50	63	80	100
$Z_{-25℃}/Z_{+20℃}$	3	2	2	2	2	2	2	2
$Z_{-40℃}/Z_{+20℃}$	4	3	3	3	3	3	3	3

耐久性
Load Life

在上限温度 125℃下施加额定电压规定时间后，电容器应满足以下要求。
After the rated voltage is applied at the upper limit temperature of 125 ℃ for a specified time, the capacitor shall meet the following requirements.

电容量变化率 Capacitance Change	≤±30%初始测量值 ≤±30% of Initial measured value
漏电流值 Leakage	≤规定值 ≤The specified value
损耗角正切值 Dissipation Factor	≤3 倍规定值 ≤300% of the specified value

Case Size (mm)	Life Time (hrs)
Φ4~Φ8×6.5	1000
Φ8×10.2~10×10.2	2000
ΦD≥12.5	5000

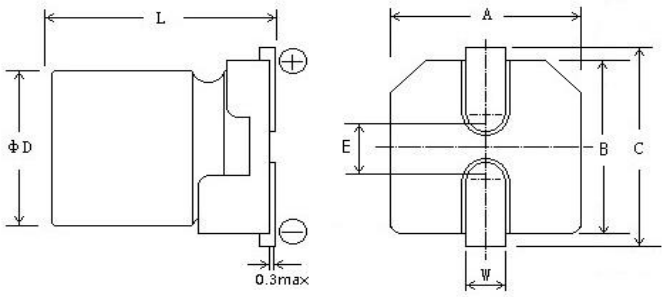
高温贮存
Shelf Life (125℃)

试验时间：1000 小时，其他项目与耐久性相同。电压应用处理：根据 JIS C5101-4.1
Test time : 1000hours ; other items are same as the endurance. Voltage application treatment : According to JIS C5101-4 4.1

额定纹波电流频率系数
Coefficient of Frequency for Rated Ripple Current

Frequency / Rated Voltage	120Hz	1KHz	10KHz	100KHz
10~100V	0.77	0.88	0.96	1.0

■外形图 Outline Drawing



*L±0.3mm，（L≥10.2mm，L±0.5mm）

Size	4×6.0	5×6.0	6.3×6.0	6.3×7.7	8×6.2	8×10.2	10×10.2	12.5×13.5	12.5×16	16×16.5	16×21.5	18×16.5	18×21.5
A/B±0.2	4.3	5.3	6.6	6.6	8.3	8.3	10.3	13.0	13.0	17.0	17.0	19.0	19.0
D±0.5	4	5	6.3	6.3	8.0	8.0	10	12.5	12.5	16.0	16.0	18.0	18.0
E±0.2	1.0	1.3	2.2	2.2	3.1	3.1	4.5	5.2	5.2	6.5	6.5	6.5	6.5
L	6.0	6.0	6.0	7.7	6.2	10.2	10.2	13.5	16.0	16.5	21.5	16.5	21.5
C±0.2	5.0	6.0	7.2	7.2	9.0	9.0	11.0	13.8	13.8	18	18	20	20
W	0.5～0.9				0.8～1.1			1.1～1.4					

■ 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

WV / Cap (μF)	10 (1A)			16 (1C)			25 (1E)			35 (1V)		
	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)
4.7										4×6.0	3.0	50
10				4×6.0	3.0	50	5×6.0	1.5	81	5×6.0 6.3×6.0	1.5 1.0	81 114
22	4×6.0	3.0	50	5×6.0	1.5	81	6.3×6.0	1.0	114	6.3×6.0	1.0	114
33	5×6.0	1.5	81	6.3×6.0	1.0	114	6.3×6.0	1.0	114	6.3×7.7	0.60	165
47				6.3×6.0	1.0	114	6.3×7.7	0.60	165	6.3×7.7 8×10.2	0.60 0.20	165 340
100							6.3×7.7 8×10.2	0.60 0.20	165 340	8×10.2 10×10.2	0.20 0.15	340 500
220	6.3×7.7 8×6.2	0.6 0.6	165 180	8×10.2 10×10.2	0.20 0.15	340 500	8×10.2 10×10.2	0.20 0.15	340 500	8×10.2 10×10.2	0.20 0.15	340 500
330	8×10.2 10×10.2	0.20 0.15	340 500	10×10.2	0.15	500	10×10.2 12.5×13.5	0.15 0.086	500 750	12.5×13.5 16×16.5	0.086 0.06	750 1000
470	10×10.2	0.15	500	12.5×13.5	0.086	750	12.5×13.5 16×16.5	0.086 0.06	750 1000	16×16.5	0.06	1000
680	12.5×13.5	0.086	750	12.5×13.5 16×16.5	0.086 0.06	750 1000	16×16.5 18×16.5	0.06 0.05	1000 1200	18×16.5	0.05	1200
1000	12.5×13.5	0.086	750	18×16.5	0.05	1200	18×21.5	0.042	1550	18×21.5	0.042	1550
2200	16×16.5	0.06	1000	18×16.5	0.05	1200						
3300	18×16.5	0.05	1200	18×21.5	0.042	1550						
4700	18×21.5	0.042	1550									

I~额定纹波电流 Rated ripple current：(mA , 125℃,100KHz)；Z 阻抗值 Impedance： (Ω,20℃,100KHz)

■ 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

WV / Cap (μF)	50 (1H)			63 (1J)			80 (1K)			100 (2A)		
	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)	ΦD×L (mm)	Z max (Ω)	I (mA)
10	6.3×6.0	3.2	58				8×10.2	0.75	110	8×10.2	0.75	110
22	6.3×7.7	1.2	95	8×10.2	0.70	140	8×10.2 10×10.2	0.75 0.55	110 150	8×10.2 10×10.2	0.75 0.55	110 150
33	6.3×7.7 8×10.2	1.2 0.50	95 180	8×10.2 10×10.2	0.70 0.50	140 200	8×10.2 10×10.2	0.75 0.55	110 150	10×10.2	0.55	150
47	8×10.2 10×10.2	0.50 0.30	180 280	8×10.2 10×10.2	0.70 0.50	140 200				12.5×13.5	0.32	300
100	10×10.2 12.5×13.5	0.30 0.18	280 550	12.5×13.5	0.25	400	16×16.5	0.24	480	16×16.5	0.24	480
220	12.5×13.5	0.18	550	16×16.5	0.22	500	16×21.5	0.18	600	18×21.5	0.18	700
330	16×16.5	0.12	850	16×16.5	0.22	500	18×21.5	0.12	1000			
470	18×16.5	0.10	920	16×21.5	0.16	650						

I~额定纹波电流 Rated ripple current：(mA , 125℃,100KHz)；Z 阻抗值 Impedance： (Ω,20℃,100KHz)