

ALUMINUM ELECTROLYTIC CAPACITORS

GK Series 系列

特点 Features

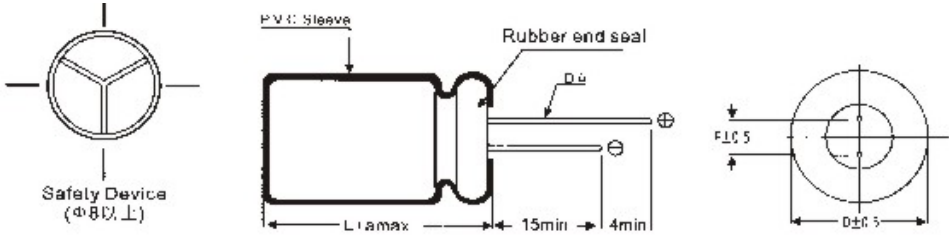
- 纹波电流比 GL 系列更高，阻抗比 GL 更低。Higher ripple current than GLseries and Lower impedance than GL series.
- 适用于个人电脑、高档开关电源、工业设备等用高频低阻抗产品。Used in : personal computer and storage equipment.
- 105℃ 负荷寿命可达 6000~10000 小时。 Load life 6000~10000 hrs at 105℃
- 安全防爆阀设计。 Safety vent construction design
- 符合环保要求 RoHS Compliant

特性表 Specifications

项 目 Item	特性参数 Performance Characteristics																													
使用温度范围 Operating Temp. Range	-40~+105℃																													
额定工作电压 Rated Voltage Range	6.3 to63 VDC																													
静电容量范围 Capacitance Range	56 to 8200 μF																													
静电容量误差 Capacitance Tolerance	±20% (120Hz, 20℃)																													
漏电流 Leakage Current	LC≤0.01CV or 3.0 (μA) 施加额定电压 2 分钟后取最大值 After 2 minutes whichever is greater measured with rated working voltage applied at +20℃.																													
损耗角正切值(Tanδ) Disspation Factor(Tanδ) (max, 120Hz, 20℃)	静电容量每大于 1000μF 时，每增加 1000μF 损失角增加 0.02. For capacitance > 1000μF, add 2% per anther 1000μF <table><tr><td>W.V(V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td></tr><tr><td>D.F(%)</td><td>0.20</td><td>0.18</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td><td>0.08</td></tr></table>										W.V(V)	6.3	10	16	25	35	50	63	80	100	D.F(%)	0.20	0.18	0.16	0.14	0.12	0.10	0.09	0.08	0.08
W.V(V)	6.3	10	16	25	35	50	63	80	100																					
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低温特性 Low Temp. Characteristic (最大阻抗比 Max Impedance Ratio) (120Hz)	静电容量大于 1000UF 时，每增加 1000UF，阻抗比在 Z(-20)/Z(+20℃)增加 0.5 Z(-40℃)/Z(+20℃)增加 1 For capacitance > 1000μF, add 0.5 per anther 1000μF for Z(-20)/Z(+20℃)add 1 per anther 1000μF for Z(-40℃)/Z(+20℃) <table><tr><td>W.V(V)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td></tr><tr><td>Z(-25)/Z(+20℃)</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr></table>										W.V(V)	6.3	10	16	25	35	50	63	80	100	Z(-25)/Z(+20℃)	2	2	2	2	2	2	2	2	2
W.V(V)	6.3	10	16	25	35	50	63	80	100																					
Z(-25)/Z(+20℃)	2	2	2	2	2	2	2	2	2																					
高温负荷 Load Life	试验条件 Test conditions 试验时间 Duration time: <table><tr><td>ΦD</td><td>6.3V</td><td>10~50V</td><td>63V</td></tr><tr><td>≤6.3</td><td>6000h</td><td>7000h</td><td>6000h</td></tr><tr><td>8X12</td><td>8000h</td><td>9000h</td><td>8000h</td></tr><tr><td>8X16 ,8X20</td><td>9000h</td><td>10000h</td><td>9000h</td></tr><tr><td>≥10Φ</td><td colspan="3">10000h</td></tr></table> 工作温度 Ambient temperature: +105℃ 工作电压 Applied voltage: Rated DC working voltage 测试条件 After test requirements at +20℃ 静电容量变化率 Capacitance change: within±25% of the initial measured value 损耗角正切 Dissipation factor: ≤200% of the initial specified value 漏电流 Leakage current: ≤ the initial specified value										ΦD	6.3V	10~50V	63V	≤6.3	6000h	7000h	6000h	8X12	8000h	9000h	8000h	8X16 ,8X20	9000h	10000h	9000h	≥10Φ	10000h		
ΦD	6.3V	10~50V	63V																											
≤6.3	6000h	7000h	6000h																											
8X12	8000h	9000h	8000h																											
8X16 ,8X20	9000h	10000h	9000h																											
≥10Φ	10000h																													
高温储存 Shelf Life	试验条件 Test conditions 放置时间 Duration time: 1000hrs 放置温度 Ambient temperature: +105℃ 工作电压 Applied voltage: None 放置完成后在+25℃ 条件下进行特性测试,并在测量前使用额定直流工作电压充电 30 分钟 After test requirements at +20℃ : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30minutes 静电容量变化率 Capacitance change: within±25% of the initial measured value 损耗角正切 Dissipation factor: ≤200% of the initial specified value 漏电流 Leakage current: ≤ the initial specified value																													
其它 Others	JIS C-5141 and JIS C-5102																													

ALUMINUM ELECTROLYTIC CAPACITORS

产品尺寸图 Diagram of Dimensions (unit: mm)



ΦD	5	6.3	8(L<20)	8(L≥20)	10	(12.5)13	16	18
Φd	0.50		0.5	0.6	0.60		0.80	
F	2.0	2.5	3.5		5.0		7.5	
a	(L<20)1.5 (L≥20)2.0							

频率修正系数 Multiplier for ripple current vs frequency

Cap(μF) \ Fre.(Hz)	120	1K	10K	100K
33~270	0.50	0.73	0.92	1.00
330~680	0.55	0.77	0.94	1.00
820~1800	0.60	0.80	0.96	1.00
2200~8200	0.70	0.85	0.98	1.00

温度修正系数 Multiplier for ripple current vs temperature

Temperature (°C)	45	60	70	85	105
Multiplier	2.10	1.90	1.65	1.40	1.00

尺寸表 Case Size

WV(V) \ Cap(μF)	6.3(8.0)			10(13)			16(20)		
	Size	Ripple	Imped.	Size	Ripple	Imped.	Size	Ripple	Imped.
270				6.3x12	550	0.18	6.3x12	700	0.17
330				6.3x12	700	0.17	6.3x12	700	0.16
470	6.3x12	540	0.17	8x12	555	0.100	8x12	1200	0.075
680				8x16	1600	0.059	10x13	1700	0.053
820	8x12	945	0.075	10x13	1700	0.053	8x20	1960	0.041
1000	8x16	1250	0.059	8x20	1960	0.042	10x16	2000	0.038
1500	8x20	1500	0.041				10x20	2470	0.028
2200				10x25	2900	0.024	13x20	2600	0.025
2700	10x20	1960	0.028	13x20	2600	0.0245	13x25	3200	0.019
3300	10x25	2250	0.024	13x25	3200	0.019	13x30	3660	0.018
3900	13x20	2480	0.025				16x20	3330	0.021
4700	13x25	2900	0.019	13x35	4120	0.016	13x35	4120	0.016
5600	13x30	3450	0.018	16x20	3300	0.021	16x25	3810	0.017
6800	16x20	3250	0.021	16x25	3810	0.017			
8200	16x25	3630	0.017						

Max Ripple Current (mA,rms,at 105℃, 100KHz),

CASE SIZE Φ D x L (mm)

ALUMINUM ELECTROLYTIC CAPACITORS

Econd

Max Impedance(Ω) at 20°C, 100KHz)

WV(V) Cap(μ F)	25(32)			35(44)			50(63)			63(79)		
	Size	Ripple	Imped.	Size	Ripple	Imped.	Size	Ripple	Imped.	Size	Ripple	Imped.
56							6.3×12	500	0.22			
82										8×12	720	0.180
100				6.3×12	700	0.17	8×12	950	0.120	8×16	990	0.130
120							8×16	1230	0.082	10×13	990	0.110
150	6.3×12	700	0.17				10×13	1280	0.073	8×20	1200	0.096
180				8×12	1200	0.075	8×20	1580	0.058	10×16	1200	0.076
220				8×16	1600	0.059	10×16	1650	0.053			
270				10×13	1700	0.053				10×20	1570	0.056
										13×16	1570	0.072
330	8×12	1200	0.075	8×20	1960	0.041	10×20	2050	0.038	10×25	1990	0.046
390	8×16	1600	0.059	10×16	2000	0.038	10×25	2420	0.032	13×20	1990	0.041
470	10×13	1700	0.053				13×20	2300	0.032	13×25	2460	0.031
560	8×20	1960	0.041	10×20	2500	0.028				13×30	2760	0.028
										16×20	2380	0.032
680	10×16	2000	0.038	10×25	2900	0.024	13×25	2800	0.025	13×35	3040	0.024
820				13×20	2600	0.025	13×30	3370	0.023	16×25	2890	0.025
							16×20	3070	0.026			
1000	10×20	2500	0.028				13×35	3810	0.021			
							16×25	3510	0.022			
1200	10×25	2900	0.024	13×25	3200	0.019						
1500	13×20	2600	0.025	13×30	3660	0.018						
				16×20	3330	0.021						
1800	13×25	3200	0.019	13×35	4120	0.016						
				16×25	3810	0.017						
2200	13×30	3660	0.018									
	16×20	3330	0.021									
2700	13×35	4120	0.016									
3300	16×25	3810	0.017									

Max Ripple Current (mA,rms,at 105°C, 100KHz),
Max Impedance(Ω) at 20°C, 100KHz)

CASE SIZE Φ D x L (mm)