



GK 系列 Series

特点 Features

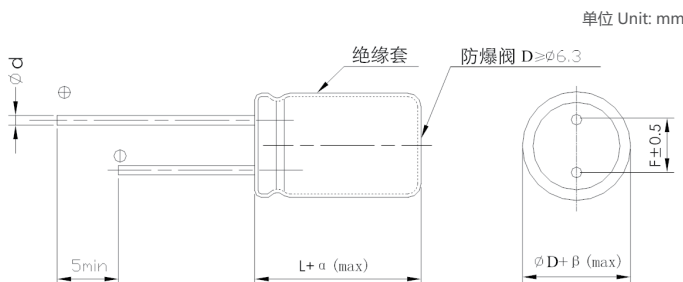
- 105°C 2000~5000小时寿命。
Load life of 2000~5000 hours at 105°C
- 高频率低阻抗、高纹波电流。
Enabled high ripple current by a reduction of impedance at high frequency range.
- 适用于电脑主机板的超低阻抗。
Lowest impedance for personal computer and storage equipment.
- RoHS指令已对应完毕。Adapted to the RoHS directive.



主要技术性能 Specifications

项目 Items	特性 Performance Characteristics																											
使用温度范围 Operating Temperature Range	-55~+105°C																											
额定电压范围 Rated Voltage Range	6.3~100V																											
标称电容量范围 Nominal Capacitance Range	4.7~6800μF																											
标称电容量允许偏差 Capacitance Tolerance	± 20% (120Hz, +20°C)																											
漏电流 Leakage Current	$I \leq 0.01CV$ (μA)或 $3\mu A$ 2分钟 取较大者 (at 20°C, after 2 minutes, Whichever is greater)																											
损耗角正切值 (tgδ) Dissipation Factor (+20°C, 120Hz)	<table border="1"> <thead> <tr> <th>U_R (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tgδ</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> </tr> </tbody> </table> <p>容量大于1000μF者, 每增加1000μF, 其损耗角正切值增加0.02 When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase.</p>	U_R (V)	6.3	10	16	25	35	50	63	100	tgδ	0.22	0.19	0.16	0.14	0.12	0.10	0.10	0.10									
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温度特性 Temperature Characteristics (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th>U_R (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>8</td> <td>6</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	U_R (V)	6.3	10	16	25	35	50	63	100	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	Z-40°C / Z+20°C	8	6	6	4	3	3	3	3
U_R (V)	6.3	10	16	25	35	50	63	100																				
Z-25°C / Z+20°C	4	3	2	2	2	2	2	2																				
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耐久性 Load Life	<p>持续时间 Duration:</p> <table border="1"> <thead> <tr> <th>ΦD</th> <th>5~6.3</th> <th>8</th> <th>10</th> <th>12.5~</th> </tr> </thead> <tbody> <tr> <td>Load life</td> <td>2000h</td> <td>3000h</td> <td>4000h</td> <td>5000h</td> </tr> </tbody> </table> <p>+105°C加额定电压, 恢复16小时后: After applying rated voltage at +105°C and then resumed for 16 hours: 电容量变化率 Capacitance change : ±25%初始测量值以内 ±25% of the initial measured value 漏电流 Leakage current : ≤初始规定值 ≤The initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 ≤2times of the initial specified value</p>	ΦD	5~6.3	8	10	12.5~	Load life	2000h	3000h	4000h	5000h																	
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Load life	2000h	3000h	4000h	5000h																								
高温贮存 Shelf Life	<p>+105°C, 1000小时贮存后, 恢复16小时后: After storage for 1000 hours at +105°C and then resumed for 16 hours: 电容量变化率 Capacitance change : ±25%初始测量值以内 ±25% of the initial measured value 漏电流 Leakage current : ≤2倍初始规定值 ≤2times of the initial specified value 损耗角正切值 Dissipation factor : ≤2倍初始规定值 ≤2times of the initial specified value</p>																											

外形图及尺寸表 Case Size Table



单位 Unit: mm

D	5	6.3	8	10	12.5	16
F	2.0	2.5	3.5	5.0	5.0	7.5
d	0.5	0.5	0.5、0.6	0.6	0.6	0.8

频率修正系数 Frequency Coefficient

Freq.(Hz)	120	1K	10K	100K
CAP(μF)				
~180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700~	0.85	0.95	0.98	1.00

αMAX	α < 20 > 1.5	βMAX	β < 20 > 0.5
	α ≥ 20 > 2.0		β ≥ 20 > 1.0

尺寸 Dimensions

CAP(μF) \ WV		6.3V(0J)			10V(1A)			16V(1C)			25V(1E)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
100	101	5×11	0.28	220	6.3×11	0.13	405	6.3×11	0.13	405	6.3×11	0.13	410
120	121							6.3×11	0.13	420			
220	221	6.3×11	0.13	405	6.3×11	0.13	420	6.3×11	0.102	450	8×11.5	0.072	760
					8×11.5	0.072	760	8×11.5	0.072	760			
330	331	6.3×11	0.13	420	8×11.5	0.072	795	8×11.5	0.072	795	8×11.5	0.056	995
								8×16	0.056	995	10×12.5	0.053	1030
470	471	8×11.5	0.072	760	8×11.5	0.056	820				8×14	0.065	1040
								10×12.5	0.053	1030	10×12.5	0.056	1160
560	561	8×11.5	0.072	795				8×20	0.041	1250			
680	681				8×11.5	0.056	995				10×16	0.032	1550
					8×20	0.041	1250	10×12.5	0.048	1160			
820	821	8×16	0.056	995	10×16	0.038	1430				10×20	0.030	1890
1000	102	10×12.5	0.053	1030				8×16	0.035	1400	10×20	0.028	2000
					10×20	0.030	1820	10×12.5	0.048	1430	12.5×12.5	0.032	1550
1200	122	8×20	0.041	1250	10×20	0.027	1950	10×20	0.027	1900			
		10×16	0.038	1430	12.5×20	0.025	2150						
1500	152	10×20	0.023	1820				12.5×20	0.025	2100	12.5×20	0.024	2400
2200	222	10×25	0.022	1980	12.5×25	0.018	2770	12.5×25	0.023	2850	12.5×25	0.020	2650
2700	272				12.5×30	0.016	2850	12.5×35	0.015	3150	16×25	0.016	3000
3300	332	12.5×20	0.021	2080	12.5×35	0.015	3150						
3900	392	12.5×25	0.018	2470	16×25	0.016	3018						
4700	472	12.5×30	0.016	2850							16×30	0.016	3260
5600	562	12.5×35	0.016	3150									
		16×20	0.015	3150									
6800	682	16×25	0.014	3250									

CAP(μF) \ WV		35V(1V)			50V(1H)			63V(1J)			100V(2A)		
		Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple	Size	ESR	Ripple
4.7	4R7										5×11	1.60	105
5.6	5R6										5×11	1.49	116
6.8	6R8										5×11	1.45	120
10	100										6.3×11	1.00	150
22	220							6.3×11	0.50	250	8×11.5	0.80	370
33	330							6.3×11	0.32	270	8×11.5	0.70	380
47	470	5×11	0.55	200	6.3×11	0.24	320	8×11.5	0.22	480	10×9	0.35	410
56	560	6.3×11	0.25	350							10×12.5	0.21	550
68	680							8×11.5	0.20	550	10×16	0.18	630
82	820										10×16	0.15	700
100	101	6.3×11	0.15	400	8×11.5	0.15	610	10×12.5	0.14	720	10×20	0.09	970
220	221	8×16	0.065	980	10×12.5	0.065	1000	10×25	0.075	1315	12.5×20	0.065	1500
		10×12.5	0.060	1050	12.5×12.5	0.050	1450	10×20	0.080	1180			
270	271							12.5×20	0.060	1560			
330	331	8×20	0.041	1210	10×20	0.05	1500	10×30	0.047	1750	16×25	0.045	2150
		10×12.5	0.045	1160									
470	471	10×16	0.045	1500	12.5×20	0.035	1900	12.5×25	0.038	2000	16×30	0.030	2350
		12.5×12.5	0.045	1450	10×20	0.055	1650	16×20	0.038	2300			
680	681	12.5×20	0.035	2150									
820	821				16×20	0.034	2100						
1000	102	12.5×20	0.032	2180	16×25	0.025	2700	16×30	0.028	2850			
1200	122	12.5×25	0.028	2300									
1500	152	16×25	0.026	2700									

Size φD×L(mm)

Maximum Allowable Ripple Current (mA rms) at 105°C 100KHz

Maximum ESR (Ω) at 20°C 100KHz

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