



ShiCaXon

# ALUMINUM ELECTROLYTIC CAPACITORS

## SKG

High temperature ( +130°C 耐高温)

Series

■ Features : 130°C 1000~3000 hours,High Temperature ,High Ripple.

特点:耐高温, 高纹波, 130°C 1000~3000小时

■ Recommended Applications :Apply to the power adapter, switching

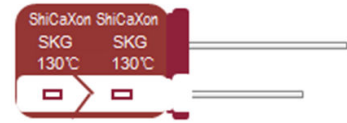
power supply, LED lighting, charger power supply high frequency electronic circuit .

适用于适配器电源,LED, 开关电源,充电电源高频电子线路中.

■ Corresponding product to RoHS (2011/65/EU)

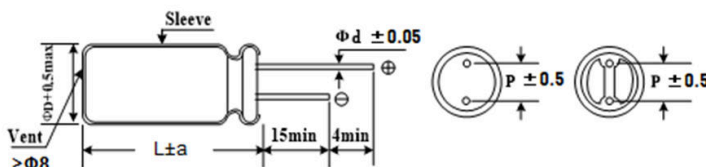
符合RoHS要求的相应产品(2011/65/EU)

■ Specifications(技术性能)



Item 项目	Characteristics 性能											
Operating Temperature Range 温度范围	-40 ~ +130°C			-40 ~ +130°C				-25 ~ +130°C				
Rated Voltage Range 电压范围	6.3 ~ 100VDC			160 ~250VDC				350 ~450VDC				
Rated Capacitance Range 容量范围	2.2~ 4700µF											
Capacitance Tolerance 容量偏差	± 20 % at 120Hz , 20°C											
Leakage Current (MAX) (20°C) 泄漏电流	I=0.01CV or 3(µA) whichever is greater.			I=0.03CV+10(µA) or 3(mA) , whichever is smaller.								
	After rated voltage applied for 2 min 两者取较大值, 2分钟测试			After rated voltage applied for 2 min 两者取较小值, 2分钟测试								
Dissipation Factor 损耗角 (tanδ) (120Hz ,20°C)	WV(V)	6.3	10	16	25	35	50	63	100	160~250	350~500	
	tan δ	0.24	0.22	0.20	0.18	0.16	0.14	0.12	0.10	0.15	0.20	
Capacitance > 1000µF, add 0.02per another1000µF. 容量大于1000uF每增加1000uF损耗角增加0.02.												
Low Temperature Stability Impedance Ratio (MAX) 低温阻抗比	Z(120Hz)	6.3	10	16	25	35	50	63	100	160~250	350~400	450~
	Z-25°C / Z+20°C	4	3	3	3	3	3	3	2	3	5	6
	Z-40°C / Z+20°C	8	6	4	4	3	3	3	3	4	-	-
High Temperature Load Life 高温负载耐久性	After applying rated voltage for 1000~3000 hours at 130°C. the capacitors shall meet the following requirements. 在130°C环境下连续施加额定电压1000~3000小时后, 符合以下要求.											
	Capacitance Change 容量	Within ± 30 % of initial value 在初始值的±30%										
	Dissipation Factor 损耗角	Not more than 300% of the specified value 不超过标准值的300%										
	Leakage Current 泄漏电流	Initial specified value or less 标准值内										
Life Time: 试验时间												
φD(mm)	5~6.3			8~10				13~				
Life(H)	1000			2000				3000				
High Temperature Shelf Life 高温放置耐久性	After leaving capacitors under no load at 130°C for 1000 hours.the capacitors shall meet the same requirement as Endurance. 在130°C环境下不加负载放置1000小时后电性能同耐久性要求.											

### ■ Diagram of Dimensions 外形尺寸



Unit: mm

φD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
a	(L<20)1.5			(L≥20)2.0			

### ■ Multiplier for Ripple Current

(1) Frequency Coefficient (频率系数)

Cap(µf)	120	1k	10k	100k
≤ 100	0.30	0.70	0.90	1.00
> 100	0.40	0.75	0.90	1.00

(2) Temperature Coefficient(温度系数)

Temperature (°C)	-55	60	70	85	105
Factor	2.33	2.17	2.00	1.75	1.00



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Series

■ DIMENSIONS Rated Capacitors, Voltage(Surge),Case Size,Imp,Ripple Current . 容量、电压(浪涌电压)、尺寸、阻抗、纹波电流.

Cap(μF)	Rated (Surge) Voltage (V)											
	6.3(8)			10(13)			16(20)			25(32)		
	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple
47				6.3x12	1.9	131	6.3x12	1.2	185	6.3x12	0.740	235
68				6.3x12	1.4	140	6.3x12	0.900	205	8x12	0.510	280
100	5x11	0.754	156	6.3x12	1.3	160	6.3x12	0.740	289	8x12	0.320	340
150				6.3x12	1.2	238	8x12	0.360	410	8x12	0.200	416
220	6.3x12	0.286	253	8x12	0.32	340	10x13	0.150	620	10x13	0.15	620
330				8x12	0.32	340	10x13	0.150	620	10x13	0.15	620
				10x13	0.150	620				10x13	0.094	790
470	8x12	0.169	480	10x13	0.150	620	10x17	0.094	790	10x20	0.075	950
680				10x13	0.130	720	10x20	0.083	880	13x20	0.045	1080
1000	10x13	0.104	683	10x17	0.075	950	13x20	0.058	1080	13x25	0.04	1350
1500	10x20	0.07	944	10x17	0.062	1050	13x20	0.058	1080	16x25	0.035	1530
2200				10x17	0.055	1220	13x25	0.050	1350	16x25	0.03	1620
				10x17	0.050	1350	16x25	0.031	1620	16x30	0.025	1860
3300				10x20	0.050	1350	13x25	0.050	1350	16x30	0.025	1860
				10x20	0.031	1620	16x30	0.025	1860			
4700				10x20	0.025	1860						

☆ Size: ΦDx L (mm) ☆ Ripple Current: (mA/rms), 130℃,100KHz ☆ Impedance (Ω),20℃,100KHz

Cap(μF)	Rated (Surge) Voltage (V)											
	35(44)			50(63)			63(79)			100(125)		
	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple
4.7	5x11	3.5	70	5x11	3.5	70	5x11	3.5	60			
10	5x11	1.5	135	5x11	2.5	135	5x11	2.5	105			
	8x12	0.75	180	8x12	2	180	8x12	2.5	120			
22	6.3x12	1	155	6.3x12	2.5	180	8x12	2.0	135			
	8x12	0.5	250	8x12	2	250						
33	6.3x12	0.75	200	6.3x12	1.5	200	8x12	1.1	150			
	8x12	0.7	280	8x12	1.1	280						
47	6.3x12	0.5	235	8x12	1	280	10x13	1.0	220	10x13	0.559	215
100	8x12	0.22	340	8x12	0.45	340	10x17	0.35	380	10*17	0.403	266
				10x13	0.4	420						
150	10x17	0.2	550	10x17	0.38	550	13x20	0.3	780			
220	10x17	0.18	650	10x20	0.35	650	13x20	0.3	780	16x20	0.118	775
	10x20	0.15	650	13x16	0.35	680						
330	10x20	0.14	790	10x20	0.45	800	13x20	0.3	850			
				13x20	0.3	850	13x25	0.22	980			
470	13x20	0.1	930	13x20	0.3	850	13x30	0.17	1120	18x30	0.061	1216
	13x25	0.1	990	13x25	0.22	980	16x25	0.17	1120			
1000	16x25	0.06	1420	16x25	0.15	1420	16x30	0.12	1550			
	16x30	0.05	1520	16x30	0.1	1550						

☆ Size: ΦDx L (mm) ☆ Ripple Current: (mA/rms), 130℃,100KHz ☆ Impedance (Ω),20℃,100KHz



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Cap(μF)	Rated (Surge) Voltage (V)							
	160(200)		200(250)		250(300)		350(400)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4.7	8x12	15	8x12	15	8x12	15	8x12	13
10	8x12	22	8x12	22	10x13	26	10x17	40
					10x17	30	10x20	44
15	10x13	33	10x13	32	10x17	37	10x20	54
22	10x13	40	10x17	46	10x17	45	13x20	73
					10x20	49	13x30	90
	10x17	45	10x20	49	13x20	55		
33	10x17	56	10x20	63	13x20	68	16x20	102
47	10x20	75	13x20	82	13x25	89	16x30	148
					16x20	90		
68	13x20	98	13x20	90	16x20	108	16x30	178
			13x25	100			18x25	173
82	13x20	108	13x25	109	16x25	160	18x30	208
	13x20	118			18x20	152		
100	13x25	130	16x20	132	16x30	193	18x35	244
	16x20	132			18x25	187		
150	16x25	174	16x30	198	18x30	245		
	18x20	165						
220	16x30	230	16x35	258	18x40	332		
	16x35	249	18x30	243				
330	18x32	308	18x40	358				

☆Size: ΦDx L (mm) ☆ Ripple Current: (mA/rms), 130°C,120Hz

Cap(μF)	Rated (Surge) Voltage (V)			
	400(450)		450(500)	
	Size	Ripple	Size	Ripple
2.2	8x12	13	8x12	13
3.3	8x12	18	8x16	20
4.7	8x12	21	10x17	25
	8x14	23	10x20	27
6.8	8x16	28	10x20	32
	10x13	30	10x25	36
8.2	10x17	37	10*20	40
10	10x17	40	10x25	43
	10x20	44	13x20	44
15	10x20	54	13x20	54
	13x20	60	13x25	60
22	13x20	105	13x25	73
	13x30	114	16x20	75
33	16x20	110	16x25	101
	16x25	122	18x20	96
47	16x30	148	16x30	132
	18x25	143		
68	18x30	190	18x30	169
82	18x30	207		
	18x35	224	18x40	232
100	18x35	247	18x45	272
	18x40	264		

☆Size: ΦDx L (mm) ☆ Ripple Current: (mA/rms), 130°C,120Hz