

KNSCHA

Empowering The World

广东科尼盛电子科技有限公司

KNSCHA ELECTRONICS CO.,LIMITED

IATF16949:2016

ISO9001:2015

ISO14001:2015

部品规格书 APPROVE SHEET

客 户 名 称 Customer Name	
产 品 名 称 Product Name	基板自立型牛角铝电解电容器 Snap-in Aluminum Electrolytic Capacitors
客 户 料 号 Customer P/N	
科 尼 盛 料 号 KNSCHA P/N	LSA450M477T402S1AA(203EC1326)
型 号 规 格 Product Type	450V/470μF 3000Hours@105℃ 插件,D35xL40mm PET咖啡银字
日 期 Date	2024年11月12日

制 造 Manufacture	
核 准 APPROVAL	制 作 PREPARED
王 勃 KNSCHA ELECTRONICS CO.,LIMITED	

客 户 承 认 栏 CUSTOMER APPROVED		
核 准 APPROVED	确 认 CHECKED	经 办 DESIGNED

④ 网址: www.knscha.com ④ 邮箱: sales@knscha.com

④ 电话: 0769-81035570 83698067 ④ 传真: 0769-83861559

④ 营业中心: 东莞市寮步镇香市科技产业园松湖智谷研发中心A3栋8层
8th floor,Building A3,Songshan Lake Intelligent Valley,Dongguan,
Guangdong,China

④ 总部基地: 广东省东莞市东坑镇农横路7号汇金展拓科技园
Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan,
Guangdong Province, China

④ 杭州分公司: 浙江省杭州市余杭区临平余之城1栋20楼
④ 厦门办事处: 福建省厦门市集美区厦门软件园三期F12栋901-8室

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KNSCHA ELECTRONICS CO., LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

Aluminum Electrolytic Capacitors

- Source Manufacturer
- 25+ Years Experience
- 7X24 Hours Online Service



Film Capacitors

- Source Manufacturer
- 10+ Years Experience



c **UL** [®] US

EN ¹⁰

DE

CQC

CCC

TÜV

KNSCHA

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KNSCHA ELECTRONICS CO., LIMITED is a manufacturing high-tech enterprise founded in 1987 with aluminum electrolytic capacitors and film capacitors as its core for automotive, renewable energy, industrial and consumer electronics. We are working on developing aluminum electrolytic capacitors and plastic film capacitors having higher performance and higher reliability and its product chain extends to multiple categories such as electric double layer capacitors, ceramic capacitors and resistors under the trademark "KNSCHA", quickly responding to customer needs.

KNSCHA's manufacturing facilities are located in Guangdong, Hunan and Jiangxi and employ over 380 peoples. Our state-of-art manufacturing facilities including R&D, testing labs, automated manufacturing, warehousing and customer service are operate with high quality standard, using Lean manufacturing processes with a comprehensive ISO 9001/14001 and IATF 16949 management systems.

Our products have obtained UL, VDE, TÜV, ENEC10, KTL, and CQC safety certification, and comply with SGS's RoHS, Reach, AECQ-200 and National Grid Testing standards.

As a supporter of this advanced electronic industry, we are very pleased to have contributed to its development.

Plastic Film Capacitors Aluminum Electrolytic Capacitors



KNSCHA has knowledge and know-how as a capacitor professional manufacturer.
We are always comitted to the original performance our customers need.
We solves problems together with our customers.

KNSCHA

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+86(769)83698067

www.knscha.cn

8th floor,Building A3,Songshan Lake Intelligent Valley,Dongguan,Guangdong,China

Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan, Guangdong Province, China

+86(769)83861559

cathy@knscha.com

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特性/ Features

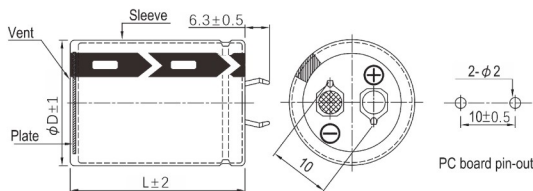
- Long Life
- Load Life: 3000 hours at 105°C
- RoHS compliant
- 长寿命
- 105°C 负荷寿命 3000 小时
- 符合 RoHS 指令



■ 表1 规格表 Specifications

项目 Items	性 能 Performance													
工作温度范围 Category Temperature Range	16~100V							160~450V						
	-40℃~+105℃							-25℃~+105℃						
额定静电容量容许误差值 Capacitance Tolerance	± 20% (120 Hz, 20℃)													
漏电流 Leakage Current(at 20℃)	测试时间 Time	2 分钟后 after 2 minutes						5 分钟后 after 2 minutes						
	漏电流 Leakage Current	I ≤ 0.03CV or 3(mA/毫安) 之中任一较小值以下 whichever is smaller						I ≤ 3√CV or 0.94 (mA/毫安) 之中任一较小值以下 whichever is smaller						
	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) Where,C = rated capacitance in μF,V = rated DC working voltage in V													
损失角正切值 Tanδ (at 120 Hz, 20℃)	额定电压 Rated Voltage	16	25	35	50	63	100	160	200	250	315	400	450	
	损失角正切值 Tanδ (max)	0.50	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.15	0.20	0.20	0.20	
温度特性(120 Hz) Low Temperature Characteristics	阻抗比不可大于下表所列数值 Impedance ratio shall not exceed the values given in the table below.													
	额定电压 Rated Voltage	16	25	35	50	63	80	100	160	200	250	315	400	450
	阻抗比 Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	3	2	2	2	2	4	4	4	8	8
耐久性 Endurance		Z(-40℃)/Z(+20℃)	15	10	8	6	6	5	5					
	保证寿命时间 Test Time	3,000 hours												
	静电容量变化率 Capacitance Change	≤ 初始值的 ± 20% Within ± 20% of initial value												
	损失角正切值 Tanδ	≤ 初始规格值的200% Less than 200% of specified value												
	漏电流 Leakage Current	≤ 初始规格值 Within specified value												
高温无负荷特性 Shelf Life Test	*于 105℃环境中供给容许纹波电流值与额定电压 3,000 小时后, 待制品回复至 20℃的环境中进行量测时, 需满足上列要求。 *The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 3,000 hours at 105℃.													
	保证寿命时间 Test Time	1,000 hours												
	静电容量变化率 Capacitance Change	≤ 初始值的 ± 20% Within ± 20% of initial value												
	损失角正切值 Tanδ	≤ 初始规格值的200% Less than 200% of specified value												
	漏电流 Leakage Current	≤ 初始规格值 Within specified value												
	*于 105℃环境中不供给额定电压 1,000 小时后, 待制品回复至 20℃的环境中进行量测时, 需满足上列要求。 *The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied.													

■ 表2 外形尺寸 Dimensions(mm)



Lead Spacing and Diameter

Unit: mm

ΦD±1	20,22,25.4						30,35				
L±2	25	30	35	40	45	50	30	35	40	45	50

■ 表3 纹波电流与频率修正系数
Ripple Current and Frequency Multipliers

Freq.(Hz)		60	120	500	1K	100K
Rated Volt.(V _b c)						
Coefficient	≤100	0.8	1.00	1.2	1.2	1.2
	≥160	0.8	1.00	1.2	1.3	1.4

■表4 标准品一览表 Standard Size

Dimension and Permissible Ripple Current

Dimension: $\phi D \times L$ (mm)
Ripple Current: mA/rms at 120 Hz, 105°C

Rated Volt.(Vdc)	16		25		35		50		63		80		100											
Surge Volt.(Vdc)	20		32		44		63		79		100		125											
Item Cap.(μF)	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.										
560													22×25	1070										
820											22×25	1110	22×30	1350										
													25×25	1350										
1000											22×25	1290	22×30	1540										
													25×30	1560										
1200									22×25	1250	22×30	1440	22×40	1740										
											25×25	1390	25×30	1760										
													30×25	1710										
1500									22×30	1470	22×30	1610	22×45	1990										
									25×25	1440	25×25	1620	25×35	2030										
													30×30	2000										
1800							22×25	1340	22×30	1580	22×35	1830	25.4×40	2280										
									25×25	1520	25×30	1860	30×35	2270										
											30×25	1810												
2200									22×35	1820	22×40	2090	25.4×50	2570										
									25×30	1750	25×35	2010	30×35	2590										
											30×25	2100	35×30	2520										
2500													35×35	2772										
2700							22×30	1700	22×40	2070	25×40	2430	30×45	2940										
							25×25	1700	25.4×35	2110	30×30	2430	35×45	2900										
									30×25	1930														
3300					22×25	1450	22×35	1980	22×45	2330	25×45	2760	30×50	3320										
							25.4×30	2000	25.4×35	2270	30×35	2780	35×40	3310										
									30×30	2240	35×30	2710												
3500													35×45	3439										
3900					22×30	1690	22×40	2250	25.4×40	2540	25×50	2920	35×45	3690										
							25.4×30	2280	30×35	2550	30×40	3120												
							30×25	2220			35×30	3070												
4700		22×25	1610	22×35	2020	22×45	2560	25.4×50	2970	30×45	3520	35×50	4140											
				25.4×25	1780	25.4×35	2610	30×40	2900	35×35	3500													
						30×30	2580	35×30	2830															
5600		22×30	1800	22×35	2130	22×50	2890	30×40	3280	30×50	3800													
				25.4×30	2040	25.4×40	2810	35×35	3240	35×40	3870													
				30×25	2310	30×30	2950																	
6000									35×35	3403	35×45	4190												
6800	22×25	1750	22×30	1910	22×40	2410	25.4×45	3370	30×50	3730														
			25.4×25		25.4×35	2310	30×35	3390	35×40	3710														
					30×25			35×30							3310									
8200	22×30	2000	22×35	2140	22×50	2850	30×40	3710	35×45	4160														
			25.4×30	2340	25.4×40	2730	35×35	3660																
			30×25	2250	30×30	2750																		
8500									35×45	4196														
10000	22×25	2050	22×40	2650	25.4×45	3050	30×50	4090	30×50	4690														
	22×30	2100	25.4×30	2610	30×35		35×40	4070																
		30×30																						
12000	22×30	2300	22×45	2690	25.4×50	3370	35×45	4560																
	22×35	2310	25.4×40	2810	30×40	3280																		
	30×25	2380	30×30	2740	35×30	3200																		
15000	22×40	2680	25.4×45	3270	30×45	3740	35×50	4770																
	22×35		30×35	3130	35×35	3690																		
	30×30		35×30	3260																				
18000	22×45	2980	25.4×50	3540	35×40	4370																		
	25.4×40	3160	30×40	3560																				
	30×30	3000	35×35	3840																				
22000	25.4×45	3400	30×45	4240	35×50	4920																		
	30×35	3390	35×35	3960																				
	35×30	3250																						
27000	25.4×50	3850	35×45	4750																				
	30×40	3830																						
	35×30	3740																						
33000	30×45	4300	35×50	5500																				
	35×35	4270																						
39000	30×50	4810																						
	35×40	4800																						
47000	35×45	5530																						

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°C

本产品目录之规格如有变更恕不另行通知(Cat. 2024C1) All product specifications in the catalog are subject to change without notice.

Dimension and Permissible Ripple Current

Dimension: $\phi D \times L$ (mm)
Ripple Current: mA/rms at 120 Hz, 105°C

Rated Volt.(Vdc)	160		200		250		315		400		450		
Surge Volt.(Vdc)	200		250		300		365		450		500		
Item Cap.(μF)	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	D×L	R. C.	
47											20×25	390	
56									20×25	510	20×30	510	
68									20×30	560	20×35	560	
82							20×25	640	20×30	640	20×35	640	
									22×25	640	22×30	640	
											22×25	550	
											25.4×25	640	
100						20×30	690	20×35	700	20×50	750		
								22×30		20×45	690		
								25.4×25		22×35		25.4×30	
120						20×30	750	20×40	750	22×40	800		
						22×25		22×35		25.4×30			
								25.4×25		30×25			
150					20×25	790	20×35	820	20×45	830	22×45	880	
							22×30		22×40	880	25.4×35		
									25×25		25.4×30		30×30
									20×40		900		22×45
22×35	920	25.4×35	25.4×40										
		25.4×25	30×30	30×30									
220			20×25	1000	20×30	1000	22×50	1000	22×50	1100	25.4×45	1120	
							22×40	1040	25.4×35		30×35		
							25.4×30		25.4×40		35×30		
							30×25		30×30				
					30×25		35×25						
270	20×25	1100	20×30	1100	20×35	1100	22×45	1160	25.4×35	1020	30×40	1280	
			22×25		22×35	1180	25.4×35		25.4×45	1220	35×35		
					25.4×25		30×25		35×30		25.4×45		1200
					330		20×30		1200		20×35	1200	20×40
22×30	1250	22×40	1300	25.4×40		25.4×50		1440		35×40			
25.4×25		25.4×30		30×30		35×30							
		30×25		35×25									
390	20×30	1300	20×40	1310	22×50	1450	25.4×45	1470	25×45	1400			
	22×25		22×30	1350	22×45	1490	30×35		30×45	1600			
			25.4×25	1350	30×25		35×30		35×35	1600			
470	20×35	1340	20×45	1450	22×50	1650	25.4×50	1700	30×40	1700	35×50	1850	
	22×30	1550	22×35	1500	25.4×40		30×40		30×50	1900			
	25.4×25		25.4×30	1500	30×30		35×30		35×40				
			30×25	1500	35×25								
560	20×40	1500	20×50	1580	25.4×45	1800	30×45	2050	30×45	1963			
	22×35	1670	22×40	1670					30×35	35×35	35×45		2120
	25.4×30		25.4×30				30×35						
	30×25		30×25				35×25						
680	20×45	1700	22×45	1780	25.4	2550	30×50	2170					
	22×40	1820	25.4×35		25.4×50	2000			35×40				
	25.4×30		30×30		30×40								
	30×25		35×25		35×30								
820	22×45	2040	25.4×45	2040	30×45	2300	35×45	2200					
	25.4×35		30×30		35×35								
	30×30		35×25										
	35×25												
1000	22×50	2250	25.4×50	2300	30×50	2470							
	25.4×40		30×35		35×40								
	30×30		35×30										
	35×25												
1200	25.4×45	2490	30×40	2650	35×45	2600							
	30×35		35×35										
	35×30												
1500	30×40	2840	30×50	3080	35×50	3000							
	35×30		35×40										
1800	30×45	3320	35×45	3480									
	35×35	3000											
2200	35×45	3500	35×50	3780									
2700	35×50	4000											

表5 产品编码说明 Part Numbering System

L	SA	450	M	477	T40	4	S1	A	A																											
电容器类别 Capacitors Name	系列名 Series Name	额定电压 Rated voltage	额定静电容量 容许误差值 Capacitance tolerance	额定静电容量 Capacitance	制品尺寸 Case size	PET套颜色管 PET Sleeve color	加工形状 Processing shape	电气特性 Electrical characteristics	内部特征码 Internal use																											
基板自立型铝电解电容器 Snap-in Aluminum Electrolytic Capacitors	KSA Series	范例Example:	M=±20%	范例Example:	范例Example:	咖啡体银字 Coffee body silver print																														
		<table><tr><th>Voltage</th><th>Symbol</th></tr><tr><td>6.3V</td><td>6R3</td></tr><tr><td>10V</td><td>010</td></tr><tr><td>250V</td><td>250</td></tr></table>		Voltage						Symbol	6.3V	6R3	10V	010	250V	250	<table><tr><th>Cap.</th><th>Symbol</th></tr><tr><td>0.1μF</td><td>104</td></tr><tr><td>2.2μF</td><td>225</td></tr><tr><td>33μF</td><td>336</td></tr><tr><td>470μF</td><td>477</td></tr><tr><td>6800μF</td><td>688</td></tr><tr><td>82000μF</td><td>829</td></tr></table>	Cap.	Symbol	0.1μF	104	2.2μF	225	33μF	336	470μF	477	6800μF	688	82000μF	829	<table><tr><th>Dim.(mm)</th><th>Symbol</th></tr><tr><td>35x40</td><td>T40</td></tr></table>	Dim.(mm)	Symbol	35x40	T40
		Voltage		Symbol																																
		6.3V		6R3																																
		10V		010																																
250V	250																																			
Cap.	Symbol																																			
0.1μF	104																																			
2.2μF	225																																			
33μF	336																																			
470μF	477																																			
6800μF	688																																			
82000μF	829																																			
Dim.(mm)	Symbol																																			
35x40	T40																																			

△如需了解更详细之介绍，请联系我们
Note:For more details ,please contact us
☎Sales@knscha.com