

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	高分子固态电解电容器 Conductive Polymer Aluminum Electrolytic Capacitors
客户料号 Customer P/N	
科尼盛料号 KNSCHA P/N	217EC0025
型号规格 Product Type	50V/220 μ F 2000Hours@105 $^{\circ}$ C 引线型,10x12mm KHG Series
日期 Date	2024年10月25日

制造 Manufacture	
核准 APPROVAL	制作 PREPARED
王勃	刘国栋

客户承认栏 CUSTOMER APPROVED		
核准 APPROVED	确认 CHECKED	经办 DESIGNED

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Aluminum Electrolytic Capacitors

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



Film Capacitors

- Source Manufacturer
- 10+ Years Experience



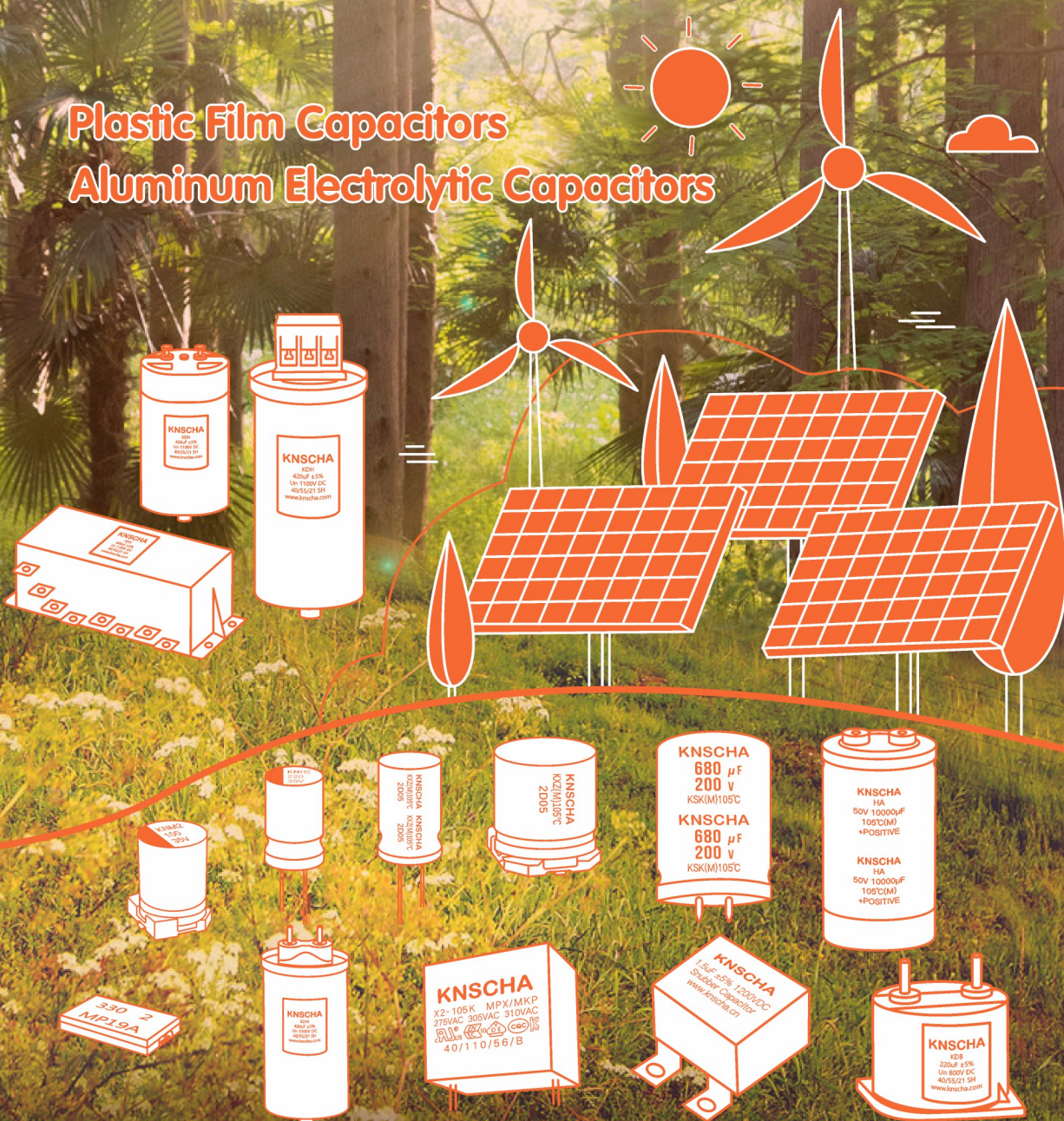
KNSCHA ELECTRONICS CO., LIMITED is a manufacturing high-tech enterprise founded in 1987 with aluminum electrolytic capacitors and film capacitors as its core for automotive, renewable energy, industrial and consumer electronics. We are working on developing aluminum electrolytic capacitors and plastic 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.**

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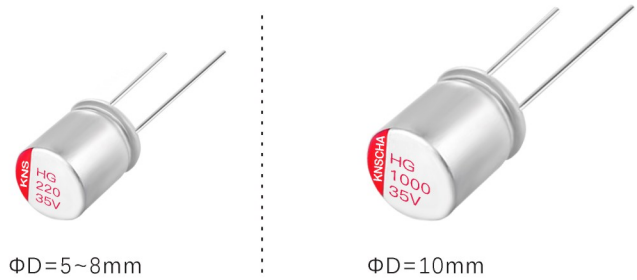
Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan, Guangdong Province, China

KNSCHA ELECTRONICS CO., LIMITED

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特性/ Features

- Load Life: 2000 hours at 105°C
- Ultra low ESR with large permissible ripple current
- RoHS Compliant
- 105°C 负荷寿命2000小时
- 极低等效串联电阻(ESR)并可承受大纹波电流
- 符合RoHS指令



Marking color: Red

引线型Radial

表1 规格表 Specifications

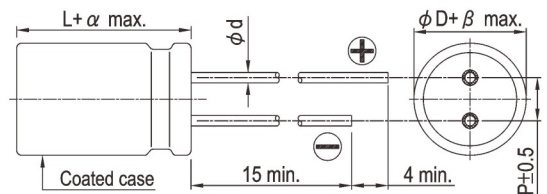
项目 Items	性能 Performance					
工作温度范围 Operating Temperature Range	-55°C ~ +105°C					
额定静电容量容许误差值 Capacitance Tolerance	± 20% (120 Hz, 20°C)					
漏电流 Leakage Current(at 20°C)	测试时间 Time	2 分钟后 after 2 minutes	漏电流 Leakage Current	$I \leq 0.2CV$ or $300(\mu A)$ (微安) 之中任一较大值以下 which ever is greater		
损失角正切值 Tanδ (at 120 Hz, 20°C)	参阅标准品一览表					
等效串联电阻 ESR (mΩ/at 100k Hz, 20°C max.)	参阅标准品一览表					
耐久性 Endurance	在 105°C 环境中, 连续加载额定电压 20,00 小时后、待温度恢复到 20°C 进行测量时, 应满足以下要求。					
	外观	无明显变化				
	静电容量变化率	≤ 初始值的 ± 20%				
	损失角正切值	≤ 初始规格值的 150%				
	等效串联电阻(ESR)	≤ 初始规格值的 150%				
	漏电流	≤ 初始规格值				
耐湿性 Moisture Resistance Stored at 60°C, RH90~95% 2000H 存放在 60°C, RH90~95% 2000h	在 60°C 90 ~ 95%RH 环境中, 连续加载额定电压 2,000 小时后, 待温度恢复到 20°C 进行测量时, 应满足以下要求。					
	外观	无明显变化				
	静电容量变化率	≤ 初始值的 ± 20%				
	损失角正切值	≤ 初始规格值				
	等效串联电阻(ESR)	≤ 初始规格值的 150%				
	漏电流	≤ 初始规格值				
浪涌电压特性	在 105°C 环境中, 按照充电 30 秒、放电 5 分 30 秒连续加载浪涌电压 1,000 次 ($R_c = 1k\Omega$) 后, 待温度恢复到 20°C 进行测量时, 应满足以下要求。					
	额定电压 (RV)	35	50	63	80	100
	浪涌电压 (SV)	40.3	57.5	72.5	92	115
	外观	无明显变化				
	静电容量变化率	≤ 初始值的 ± 20%				
	漏电流	≤ 初始规格值				

表2 纹波电流的频率系数 Frequency Coefficient For Ripple Current

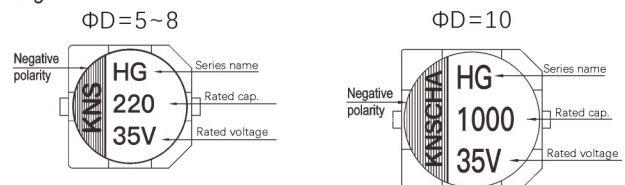
Frequency	120Hz ≤ freq. < 1KHz	1KHz ≤ freq. < 10KHz	10KHz ≤ freq. < 100KHz	100KHz ≤ freq. < 300KHz
Coefficient	0.05	0.3	0.7	1

表3 外形尺寸 Dimensions(mm)

Lead Spacing and Diameter						Unit: mm
ΦD	5.0	5.5	6.3	8.0	10.0	
P	2.0	2.5	2.5	3.5	5.0	
Φd	0.5	0.5	0.5	0.6	0.6	
β						0.5
α						1.0



Marking



■表4 标准品一览表 Standard Size

Dimension: ϕ DxL(mm)
Ripple Current: mA/rms at 100k Hz, 105°C

Standard Ratings

Rated Volt. (V)	Capacitance (μ F)	Size ϕ DxL(mm)	$\tan\delta$ (120Hz, 20°C)	L C (μ A)	ESR (m Ω /at 100k Hz,20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
35V	10	5X8	0.12	300	68	1500
	22	5X7	0.12	300	58	1650
	47	5X8	0.12	329	55	1800
		6.3X7	0.12		50	1900
	68	6.3X8	0.12	500	50	1950
	100	5.5X9	0.12	700	38	2150
		6.3X7	0.12		45	2150
		6.3X8	0.12		38	2250
		6.3X10.5	0.12		35	2300
	150	8X8	0.12	1050	32	2450
		6.3X9	0.12		38	2550
	220	6.3X 11.5	0.12	1540	38	2750
		8X8	0.12		38	2700
		8X11.5	0.12		35	2800
		10X12	0.12		35	2850
	270	6.3X15	0.12	1890	35	2900
	330	8X16	0.12	2310	28	3150
		10X12	0.12		28	3150
470	6.3X15	0.12	3290	22	3250	
	8X16	0.12		28	3350	
	10X12	0.12		25	3450	
560	8X16	0.12	3920	28	3500	
680	8X16	0.12	4760	28	3650	
820	10X16	0.12	5740	28	3900	
1000	10X16	0.12	7000	28	4200	
50V	4.7	6.3X5.5	0.12	300	58	1350
	10	5X8	0.12	300	58	1450
	22	6.3X8	0.12	300	58	1650
		6.3X7	0.12		470	52
	47	8X8	0.12	48		2250
		68	8X8	0.12	680	48
	100	8X8	0.12	1000	42	2300
		8X11.5	0.12		38	2450
		10X12	0.12		38	2550
	220	8X16	0.12	2200	38	2750
		10X12	0.12		38	2750
	330	10X16	0.12	3300	38	2900
470	10X16	0.12	4700	32	3150	

制品尺寸与容许纹波电流一览表

尺寸: 直径(ϕ D) \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

Dimension and Permissible Ripple Current

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

Rated Volt. (V)	Capacitance (μF)	Size $\phi D \times L$ (mm)	$\tan \delta$ (120Hz, 20°C)	L C (μA)	ESR (m Ω /at 100k Hz, 20°C max.)	Rated R. C. (mA/rms at 100k Hz, 105°C)
63V	5.6	6.3X5.5	0.12	300	68	850
	10	6.3X5.5	0.12	300	58	1150
		6.3X8	0.12		52	1400
	22	6.3X8	0.12	300	48	1550
		8X8	0.12		45	1750
	47	8X8	0.12	592	38	1850
		8X11.5	0.12		48	2050
	56	8X8	0.12	705	38	2000
	100	10X12	0.12	1260	38	2400
	150	10X16	0.12	1540	35	2650
220	10X16	0.12	2772	38	2800	
330	10X16	0.12	4158	32	2850	
80V	4.7	5X7	0.12	300	68	750
	10	5X7	0.12	300	58	850
	22	6.3X8	0.12	352	48	1150
	47	6.3X11.5	0.12	752	42	1450
		8X8	0.12		38	1600
	100	8X16	0.12	1600	35	1950
	220	10X16	0.12	3080	28	2450
100V	4.7	5X7	0.12	300	68	680
	10	5X8	0.12	300	58	720
		6.3X8	0.12		52	840
	22	6.3X8	0.12	440	48	980
		8X8	0.12		45	1100
	47	8X11.5	0.12	940	45	1350
	100	10X13.5	0.12	2000	35	1800
150	10X16	0.12	3000	30	2250	

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

◆ 高低温阻抗

阻抗比	性能
Z(-55°C)/Z(+20°C)	0.75 to 1.25
Z(105°C)/Z(+20°C)	0.75 to 1.25