

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	217EC0024
型 号 规 格 Product Type	50V/220μF 2000Hours@105℃ 引线型,10x10.5mm KHG Series
日 期 Date	2024年10月25日

制 造 Manufacture	
核 准 APPROVAL	制 作 PREPARED
王 伟	刘 国 华

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

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KNSCHA ELECTRONICS CO., LIMITED

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Aluminum Electrolytic Capacitors

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



Film Capacitors

- Source Manufacturer
- 10+ Years Experience



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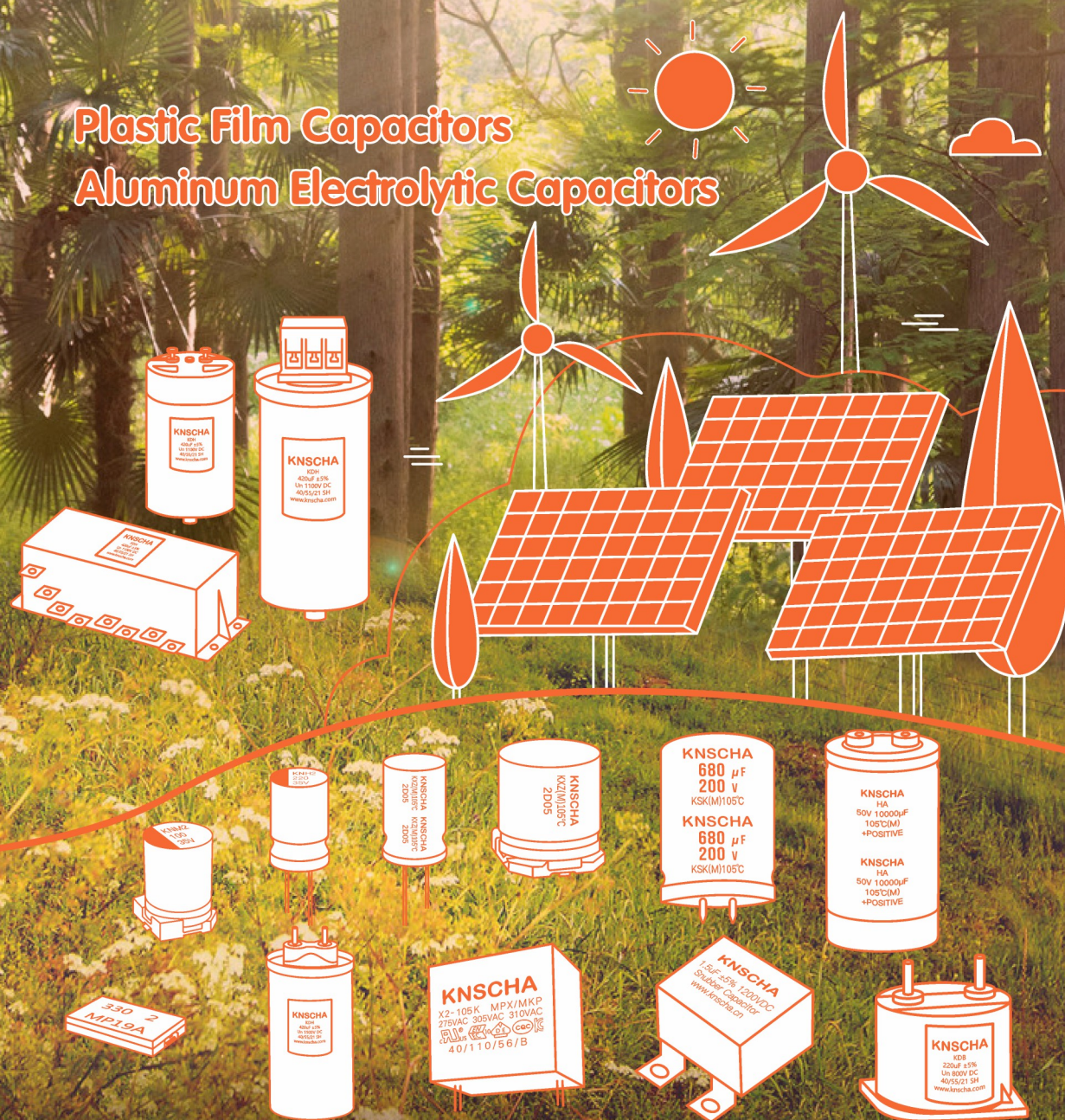
KNSCHA ELECTRONICS CO., LIMITED is a manufacturing high-tech enterprise founded in 1987 with aluminum electrolytic capacitors and film capacitors as its core for automotive, renewable energy, industrial and consumer electronics. We are working on developing aluminum electrolytic capacitors and plastic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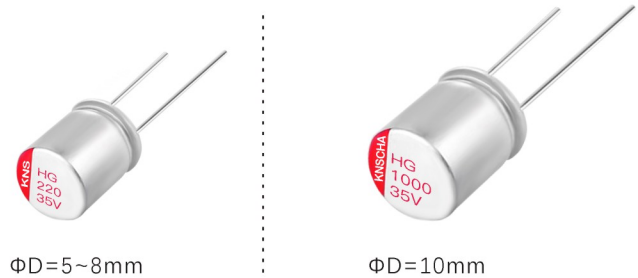
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特性/ Features

- 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



ΦD=5~8mm

ΦD=10mm

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℃~+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	漏电流 Leakage Current		I≤0.2CV or 300(μA/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℃)	参阅标准品一览表						
等效串联电阻 ESR (mΩ/at 100k Hz, 20℃ max.)	参阅标准品一览表						
耐久性 Endurance	在 105℃环境中, 连续加载额定电压 20,00 小时后、待温度恢复到 20℃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℃, RH90~95% 2000H 存放在60℃,RH90~95% 2000h	在60℃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℃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℃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(Rc = 1kΩ) 后, 待温度恢复到20℃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%				
	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				

表2 纹波电流的频率系数
Srequency 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				

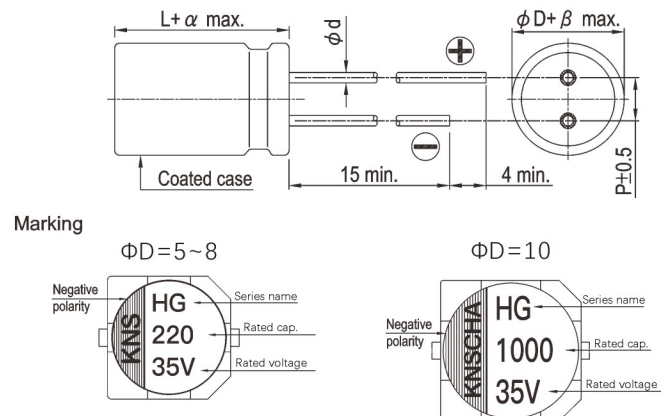


表4 标准品一览表 Standard Size

Standard Ratings

Dimension: ϕ D $\times$ L(mm)
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt. (V)	Capacitance (μ F)	Size ϕ D $\times$ L(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
		8X8	0.12		32	2450
	150	6.3X9	0.12	1050	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	8X1 6	0.12	3920	28	3500
	680	8X1 6	0.12	4760	28	3650
	820	10X16	0.12	5740	28	3900
	1000	10X1 6	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
	47	6.3X7	0.12	470	52	1800
		8X8	0.12		48	2250
	68	8X8	0.12	680	48	2400
	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 (μ F)	Size $\phi D \times L$ (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)
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
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
$Z(-55^{\circ}\text{C})/Z(+20^{\circ}\text{C})$	0.75 to 1.25
$Z(105^{\circ}\text{C})/Z(+20^{\circ}\text{C})$	0.75 to 1.25