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	引线型铝电解电容器 Radial Type Aluminum Electrolytic Capacitors
客 户 料 号 Customer P/N	
科 尼 盛 料 号 KNSCHA P/N	DXW050M477H202S1AA (203EC1244)
型 号 规 格 Product Type	50V/470μF 7000Hours@105℃ 插件,D10xL20mm PET咖啡银字
日期 Date	2024年10月30日

制 造 Manufacture	
核 准 APPROVAL	制 作 PREPARED
王涛	刘勇分

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



cULus EAC VDE CQC KC TÜV

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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.

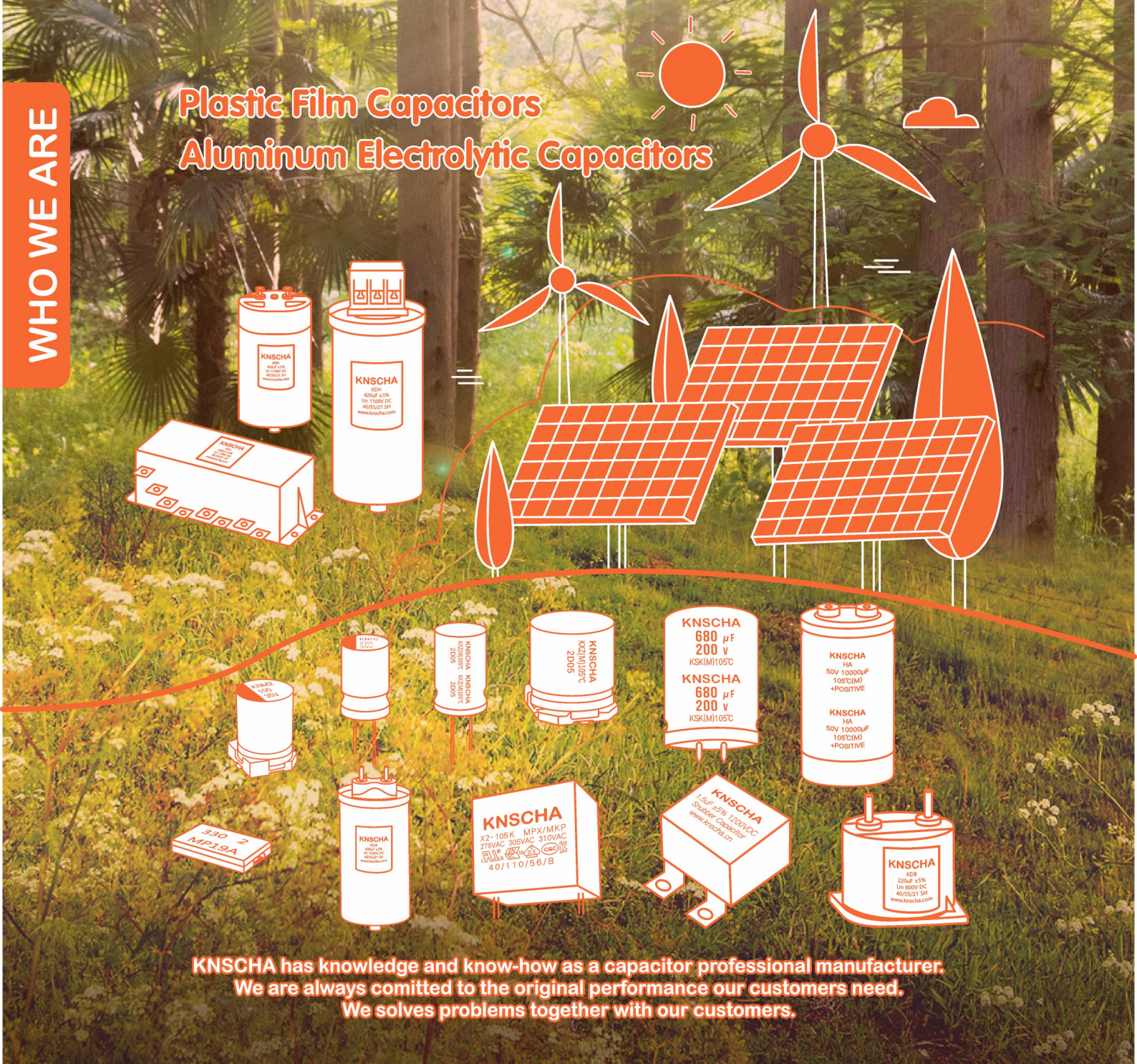
KNSCHA’s manufacturing facilities are located in Guangdong, Hunan and Jiangxi and employ over 380 peoples.Our state-of-art manufacturing facilities including R&D, testing labs, automated manufacturing, warehousing and customer service are operate with high quality standard, using Lean manufacturing processes 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.

WHO WE ARE

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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PRODUCT CHARACTERISTICS

KNSCHA P/N	Cap. (120Hz) (μF)	Cap. Tol. (%)	Rate Volt. (VDC)	Surge Volt. (VDC)	Temperature Range (℃)	Case Size ΦDxL(mm)	Leakage Current Max(uA)	Dissipation Factor (MAX)	Ripple Current (mA/rms at 100kHz,105℃)	ESR (Ω/at 100kHz,20℃)	Load Life (Hours)
DXW050M477H202S1AA	470	±20	50	63	-40~+105	10x20	235	0.16	1450	0.05	7000

KXW Series Aluminum Electrolytic Capacitors

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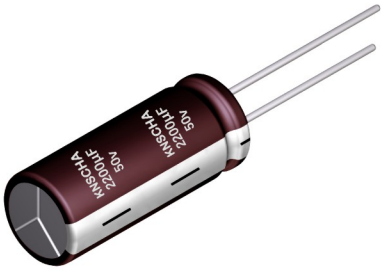
引线型Radial

特性/ Features

- Low impedance for high frequency
- Long life, High ripple current
- suitable for switching power supplies
- Load Life:4000~10000 hours at 105℃
- RoHS compliant
- 高频低阻、耐高纹波电流
- 长寿命品，适用交换式电源供应器(SPS)
- 105℃负荷寿命4000~10000小时
- 符合RoHS指令



ΦD < 13mm

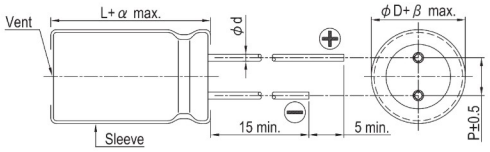


ΦD≥13mm

■表1 规格表 Specifications

项目 Items	性 能 Performance														
工作温度范围 Category Temperature Range	6.3V~400V									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℃)	额定电压 Rated voltage		≦100V							> 100V					
	测试时间 Time		2 分钟后 after 2 minutes							2 分钟后 after 2 minutes					
	漏电流 Leakage Current		I ≤ 0.01CV or 3(μA/微安) 之中任一个较大值以下whichever is greater							I≤0.03CV+10(μA/微安)					
	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	6.3	10	16	25	35	50	63	80						
	损失角正切值 Tanδ (max)	0.20	0.20	0.16	0.14	0.12	0.10	0.09	0.08						
	额定电压 Rated Voltage	100	160	200	250	400	450								
	损失角正切值 Tanδ (max)	0.08	0.20	0.20	0.20	0.24	0.24								
	当额定静电容量大于1,000微法拉时，每增加1,000微法拉需加0.02。 When the capacitance exceeds 1,000μF,0.02 shall be added every 1,000μF increase.														
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		6.3	10	16	25	35	50	63	80	100	160	200	250	400	450
	阻抗比 Impedance Ratio	Z(-25℃)/Z(+20℃)	4	3	2	2	2	2	2	2	2	3	3	3	6	6
		Z(-40℃)/Z(+20℃)	8	6	4	4	3	3	3	3	3	8	8	8	10	
耐久性 Endurance	保证寿命时间 Test Time		ΦD=5mm and 6.3mm				ΦD=8mm and 10mm				ΦD=12.5mm and 18mm					
			6.3V~10V		16V~450V		6.3V~10V		16V~450V		6.3V~10V		16V~450V			
			4,000 hours		5,000 hours		6,000 hours		7,000 hours		8,000 hours		10,000 hours			
	静电容量变化率 Capacitance Change		≦初始值的± 25% Within ±25% of initial value													
	损失角正切值 Tanδ		≤初始规格值的200%或0.4(取较大者) Less than 200% of specified value or 0.4 whichever is greater													
	漏电流 Leakage Current		≦初始规格值 Within specified value													
	*于 105℃环境中供给容许纹波电流值与额定电压 4,000~10,000 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 4,000~10,000 hours at 105℃.														
高温无负荷特性 Shelf Life Test	保证寿命时间 Test Time		1,000 hours													
	静电容量变化率 Capacitance Change		≦初始值的± 25% Within ±25% of initial value													
	损失角正切值 Tanδ		≤初始规格值的200%或0.4(取较大者) Less than 200% of specified value or 0.4 whichever is greater													
	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

β	±0.5								
ΦD	5	6.3	8	10	12.5	13	16	18	22
Φd±0.05	0.5		0.6				0.8		
P±0.5	2	2.5	2.5/3.5	5.0			7.5		10
L±α	±1		±1.5/L≥40,α=±2.0				±2/L≥40,α=±2.5		±2.0

■表3 纹波电流与频率补正系数

Ripple Current and Frequency Multipliers

Cap.(μF) \ Freq.(Hz)		120	1K	10K	100K
Coefficient	~33	0.42	0.70	0.90	1.00
	39~270	0.50	0.73	0.92	1.00
	330~680	0.55	0.77	0.94	1.00
	820~1800	0.60	0.80	0.96	1.00
	2200~	0.70	0.85	0.98	1.00

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.

■表4 标准品一览表 Standard Size

Dimension and Permissible Ripple Current

Dimension: ϕD × L(mm)
Impedance: Ω/at 100k Hz, 20°C
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt.(Vdc)	6.3			10			16			25		
Surge Volt.(Vdc)	8			13			20			32		
Item / Cap.(μF)	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.
10										5×11	1.00	82
22										5×11	0.80	110
47							5×11	0.570	200	5×11	0.580	210
56							5×11	0.570	210			
100				6.3×7	0.580	190	5×11	0.300	280	6.3×11	0.220	340
				5×11	0.580	210	6.3×11	0.220	310			
150	5×11	0.570	210									
220				6.3×11	0.220	340	6.3×11	0.22	340	8×12	0.130	640
330	6.3×11	0.220	340				6.3×14	0.160	640	8×16	0.080	888
							8×12	0.130	640	10×12.5	0.080	865
470	6.3×11	0.18	520	8×12	0.130	640	8×14	0.10	865	8×16	0.060	968
										8×20		1210
							10×12.5	0.080	865	10×16		1210
										10×20		1353
680	8×12	0.130	640	8×14	0.080	775	8×16	0.060	1082	8×16	0.046	1000
										8×20		1251
				10×12.5		865	10×16		1210	10×16		1251
										10×20		1400
820	10×12.5	0.080	865	10×16	0.072	1000				10×16	0.050	1590
										10×20		1500
										10×25	0.042	1650
										13×16	0.042	1800
1000	8×16	0.087	870	8×16	0.060	1082	8×20	0.055	1100	10×20	0.035	1472
							10×16	0.050	1250			
				10×16		1210	10×20	0.046	1400	13×20		1900
1200	8×20	0.071	1050	10×20	0.046	1400	10×25	0.042	1650			
1500	10×20	0.046	1400	10×16	0.042	1320	10×20	0.047	1630	13×20	0.033	2550
				10×20		1650	13×20	0.035	1900			
				10×25						13×25	0.027	2230
1800							10×25	0.039	2020			
2200	10×25	0.042	1650	10×20	0.043	1460	13×25	0.027	2230	18×20.5	0.025	2880
				13×20	0.035	1900						
2700	10×31.5	0.031	1910							16×25.5	0.021	2930
3300	13×20	0.035	1900	13×25	0.027	2230	13×35	0.020	2880	18×25.5	0.019	3140
3900	12.5×25	0.026	2240	16×20.5	0.027	2530	16×25.5	0.021	2930			
4700	12.5×30	0.024	2650	13×35	0.020	2880	18×25.5	0.019	3140	18×35.5	0.019	4220
5600	16×20.5	0.026	2540	16×25.5	0.021	2930				18×40	0.012	4280
6800	16×25.5	0.021	2930	18×25.5	0.019	3140	16×40	0.013	4080			
8200							18×35.5	0.014	4220			
10000	18×25.5	0.021	3140	16×40	0.013	4080	18×40	0.012	4280			

制品尺寸与容许纹波电流一览表

尺寸：直径(ϕD)×长度(L)，(毫米/mm)
阻抗值：欧姆(Ω)/最大值，100k 赫兹(Hz), 20℃
容许纹波电流：毫安/均方根值(mA/rms)，100k 赫兹(Hz), 105℃

KXW Series Aluminum Electrolytic Capacitors

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Dimension: ϕD × L(mm)
Impedance: Ω/at 100k Hz, 20°C
Ripple Current: mA/rms at 100k Hz, 105°C

Dimension and Permissible Ripple Current

Rated Volt.(Vdc)	35			50			63			80			100		
Surge Volt.(Vdc)	44			63			79			100			125		
Item / Cap.(μF)	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.
0.47				5×11	5.50	17									
1				5×11	4.00	30									
2.2				5×11	2.50	43									
3.3				5×11	2.20	80									
4.7				5×11	1.90	100									
5.6													5×11	1.4	110
6.8				5×11	1.7	110				5×11	2.2	56	5×11	1.40	125
10				5×11	1.50	135									
15							5×11	0.88	165	6.3×11	1.2	120	6.3×11	0.57	205
22	5×11	0.98	170	5×11	0.70	180							8×12	1.00	190
27				5×11	0.70	190							8×12	0.36	355
33	5×11	0.58	210				6.3×11	0.35	265						
39													8×16	0.25	450
47	6.3×11	0.35	280	6.3×11	0.45	260	8×12	0.30	310				10×12.5	0.17	480
56	6.3×11	0.22	340	6.3×11	0.30	295	8×12	0.22	500				8×20	0.19	565
68				8×9	0.30	300				10×12.5	0.17	480	8×20	0.11	600
													10×16		
82							8×16	0.16	665				10×20	0.084	800
							10×12.5	0.11	690						
100	8×12	0.18	480	8×12	0.17	555	8×20	0.12	750	10×16	0.11	600	10×20	0.11	750
							10×16	0.12	750				13×16		
120				8×16	0.120	730	8×20	0.12	820	10×20	0.084	800	10×25	0.069	900
							10×16	0.076	950				13×16	0.11	750
150	8×12	0.13	640	10×12.5	0.120	760	10×16	0.076	950	10×25	0.069	900	13×20	0.062	1100
										13×16	0.11	750			
180				8×20	0.091	910	10×20	0.056	1150	10×20	0.12	1040			
							13×16	0.072	1150						
220	8×12	0.090	630	8×20	0.090	950	10×20	0.200	1020	10×20	0.09	1110	13×25	0.047	1250
	8×16	0.087	840	10×16	0.084	1050	10×25	0.046	1350				13×30	0.047	1400
	10×12.5	0.08	865				13×16	0.046	1020	13×20	0.062	1100	16×20.5	0.048	1350
270	10×16	0.07	1050	10×20	0.060	1220	13×20	0.041	1500				13×30	0.042	1500
330	10×16	0.06	1210	10×20	0.055	1220	13×20	0.06	1570	13×25	0.047	1250	13×35	0.036	1650
				10×25	0.055	1440							16×25.5	0.038	1700
										16×20.5	0.048	1350	18×20.5	0.045	1500
390							12.5×25	0.06	2000	13×25	0.08	1300	13×40	0.032	1800
										13×30	0.042	1500	16×31.5	0.058	1960
470	10×20	0.048	1400	10×20	0.050	1450	13×20	0.032	1030	12.5×35	0.036	1650	16×31.5	0.032	1850
							13×30	0.028	2300	16×25.5	0.038	1700			
				13×20	0.045	1660	16×20.5	0.032	2000	18×20.5	0.045	1500	18×25.5	0.036	1750
560	10×25	0.042	1650	13×25	0.034	1950	13×35.5	0.024	2500	12.5×40	0.032	1800	16×35.5	0.029	2000
							13×30	0.082	2000						
							16×20.5	0.045	2000				18×31.5	0.030	1900
							16×25.5	0.030	2400						
680	10×20	0.063	1620	13×20	0.040	1895	12.5×40	0.021	2800	16×31.5	0.032	2400	18×35.5	0.027	2200
	13×20	0.035	1900	13×25	0.030	1825	16×25.5	0.025	2600						
				13×30	0.030	2310	18×20.5	0.030	2500	18×25.5	0.036	1750	16×40	0.027	2200
820				13×35	0.025	2510	16×31.5	0.021	2850	16×35.5	0.029	2000	18×40	0.026	2700
				16×20.5	0.034	2210	18×25.5	0.024	2800	18×31.5	0.030	1900			
1000	13×25	0.027	2230	16×25.5	0.025	2555	16×25.5	0.019	2900	16×40	0.027	2200			
	16×20.5	0.027	2530							18×31.5					
1200	13×30	0.024	2650	16×35.5	0.022	3010	16×40	0.018	3400	18×40	0.026	2700			
	16×20.5	0.027	2530	18×25.5	0.026	2740	18×31.5	0.020	3300						
1500	13×35	0.020	2880	16×35.5	0.019	3150	18×35.5	0.018	3400						
1800	12.5×40	0.030	2900	18×31.5	0.021	3640	18×40	0.017	3500						
	16×25.5	0.021	2930												
2200	18×25.5	0.019	3140	18×35.5	0.017	3680									
3300	18×35.5	0.012	4280												

制品尺寸与容许纹波电流一览表

尺寸：直径(ϕD)×长度(L)，(毫米/mm)
阻抗值：欧姆(Ω)/最大值，100k 赫兹(Hz), 20℃
容许纹波电流：毫安/均方根值(mA/rms)，100k 赫兹(Hz), 105℃

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: ϕD × L(mm)
Impedance: Ω/at 100k Hz, 20°C
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt.(Vdc)	160			200			250			400			450		
Surge Volt.(Vdc)	200			200			300			450			500		
Item / Cap.(μF)	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.
4.7	8×12	2.25	208										10×20	3.70	270
10	10×16	2.25	315				10×20	4.20	350	10×20	3.45	350	13×20	2.60	450
22	10×20	1.65	500				10×20	1.80	500	13×20	1.22	650	16×20.5	1.00	725
33	10×20	1.07	625				13×20	1.80	800	16×20.5	0.69	900	16×25.5	1.21	975
													16×20.5	2.00	850
47	13×20	0.69	750				13×20	0.90	975	16×25.5	0.50	1175	18×25.5	0.48	1200
										18×20.5	1.00	1110			
68													18×25.5	0.48	1350
100	13×25	0.47	1395				16×25.5	0.45	1530	18×31.5	0.46	1720	18×35.5	0.48	1690
													18×40	0.46	1800
220	16×35.5	0.21	2295	18×25.5	0.60	2300	18×31.5	0.41	2545						

制品尺寸与容许纹波电流一览表

尺寸：直径(ϕD)×长度(L)，(毫米/mm)
阻抗值：欧姆(Ω)/最大值，100k 赫兹(Hz), 20℃
容许纹波电流：毫安/均方根值(mA/rms)，100k 赫兹(Hz), 105℃

■表5 产品编码说明 Part Numbering System

D	XW	035	M	227	G12	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
引线型铝电解电容器 Leaded Aluminum Electrolytic Capacitors	KXW Series	范例Example:	M=±20%	范例Example:	范例Example:	咖啡体银字 Coffee body silver print			

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

ϕDxL (mm)	Symbol
8x12	G12

⚠如需了解更详细之介绍，请联系我们
Note:For more details ,please contact us
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