

Specification for approval

客户名称:

(Customer Name)

产品名称:

电解电容器

(Product Name)

Aluminum Electrolytic Capacitor

客户料号:

(Customer part number)

科尼盛料号:

DSB050M477H162S1AA

(KNSCHA number)

型号规格:

E/C 50V/470UF 10x16mm KNSCHA KSB

(Specifications)

日期:

2025.5.29

DATE

制 造	
Manufacture	
核 准	制 作
APPROVAL	PREPARED
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客户承认栏		
CUSTOMER APPROVED		
核 准	确 认	经 办
APPROVED	CHECKED	DESIGNED

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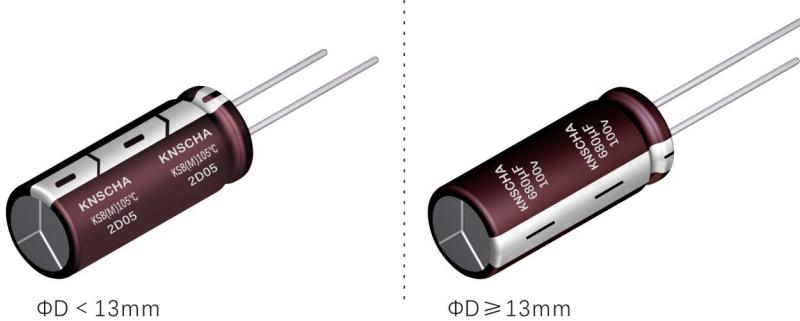
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特性/ Features

- Ultra Low Impedance
- Long life
- Load Life: 6000~1000 hours at 105°C
- RoHS compliant
- 高频超低阻抗、长寿命品
- 105°C 负荷寿命6000~10000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	6.3~100V															
	-40°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)	额定电压 Rated voltage	≤100V														
	测试时间 Time	2 分钟后 after 2 minutes														
	漏电流 Leakage Current	$I \leq 0.01CV$ or $3(\mu A/\text{微安})$ 之中任一个较大值以下 whichever is greater														
	$I = \text{漏电流}(\mu A/\text{微安})$ 、 $C = \text{额定静电容量}(\mu F/\text{微法拉})$ 、 $V = \text{额定直流工作电压}(V/\text{伏特})$ Where, C = rated capacitance in μF , V = rated DC working voltage in V															
损失角正切值 Tanδ (at 120 Hz, 20°C)	额定电压 Rated Voltage	6.3	10	16	25	35	50	63	80	100						
	损失角正切值 Tanδ (max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.09	0.08						
	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						
	阻抗比 Impedance Ratio	Z(-25°C)/Z(+20°C)	4	3	2	2	2	2	2	2						
		Z(-40°C)/Z(+20°C)	8	6	4	3	3	3	3	3						
耐久性 Endurance	保证寿命时间 Test Time	ΦD=5mm and 6.3mm				ΦD=8mm				ΦD≥10mm						
		6,000 hours				8,000 hours				10,000 hours						
	静电容量变化率 Capacitance Change	≤10V				> 10V										
		≤初始值的± 30% Within ±30% of initial value				≤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°C 环境中供给容许纹波电流值与额定电压 6,000~10,000 小时后，待制品回复至 20°C 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°C after the rated voltage applied with rated ripple current for 6,000~10,000 hours at 105°C.																
高温无负荷特性 Shelf Life Test	保证寿命时间 Test Time	1,000 hours														
		≤10V				> 10V										
	静电容量变化率 Capacitance Change	≤初始值的± 30% Within ±30% of initial value				≤初始值的± 25% Within ±25% of initial value										
		≤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														
	损失角正切值 Tanδ	≤初始规格值 Within specified value														
*于105°C环境中不供给额定电压 1,000 小时后，待制品回复至20°C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°C after exposing them for 1,000 hours at 105°C without voltage applied.																

■表2 外形尺寸 Dimensions(mm)

Lead Spacing and Diameter		Unit: mm						
β	±0.5	±1.0						
ΦD	5 6.3 8 10 12.5,13 16 18							
Φd±0.05	0.5		0.6		0.8			
P±0.5	2 2.5 3.5		5.0		7.5			
L±α	L < 16: α=1.5; L ≥ 16: α=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

■表4 标准品一览表 Standard Size

Dimension and Permissible Ripple Current

Dimension: $\phi D \times L$ (mm)
Impedance: Ω /at 100k Hz, 20°C
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt.(Vdc)	6.3			10			16		
Surge Volt.(Vdc)	8			13			20		
Item Cap.(μF)	D×L	IMP	R. C.	D×L	IMP	R. C.	D×L	IMP	R. C.
10							5×11	2.0	121
100							5×11	0.22	345
150				5×11	0.22	345			
220	5×11	0.22	345				6.3×11	0.094	540
330				6.3×11	0.094	540			
470	6.3×11	0.094	540				8×12	0.056	945
							8×15	0.056	1050
680				8×12	0.056	945	8×16	0.045	1250
							10×12.5	0.039	1330
820	8×12	0.056	945						
1000				8×16	0.045	1250	8×20	0.035	1500
				10×12.5	0.039	1330	10×16	0.028	1760
1200	8×16	0.045	1250						
	10×12.5	0.039	1330						
1500	8×20	0.029	1500	8×20	0.029	1500	10×20	0.036	1960
				10×16	0.028	1760	12.5×20		2000
1800	10×16	0.028	1760	10×20	0.023	1960	10×23	0.025	2250
2200	10×20	0.020	1960	10×25	0.018	2250	12.5×20	0.022	2480
2700	10×23	0.018	2250				12.5×25	0.020	2900
3300				12.5×20	0.017	2480	12.5×30	0.015	3450
							16×20.5		3250
3900	12.5×20	0.017	2480	12.5×25	0.015	2900	12.5×35	0.013	3570
4700	12.5×25	0.015	2900	12.5×30	0.013	3450			
				16×20.5	0.015	3250	16×25.5	0.013	3630
5600	12.5×30	0.013	3450	12.5×35	0.012	3570			
6800	12.5×35	0.012	3570						
	16×20.5	0.015	3250	16×25.5	0.013	3630			
8200	16×25.5	0.013	3630						

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°C
容许纹波电流: 毫安/均方根值(mA/rms), 100k 赫兹(Hz), 105°C

Dimension and Permissible Ripple Current

Dimension: $\phi D \times L$ (mm)
Impedance: Ω /at 100k Hz, 20°C
Ripple Current: mA/rms at 100k Hz, 105°C

Rated Volt.(Vdc)	25			35		
Surge Volt.(Vdc)	32			44		
Item Cap.(μF)	D×L	IMP	R. C.	D×L	IMP	R. C.
47	5×11	0.30	250	5×11	0.22	345
68	5×11	0.22	345			
100	6.3×11	0.19	404	6.3×11	0.094	540
150	6.3×11	0.094	540			
220				8×12	0.056	945
				8×16		1126
270				8×16	0.045	1250
330	8×12	0.056	945	10×12.5	0.039	1330
390	8×16	0.045	1250	8×20	0.035	1500
470	8×16	0.039	1330	10×16	0.032	1760
	10×12.5					
560	8×20	0.029	1500	10×20	0.030	1960
680	8×16	0.06	1600			
	8×20	0.028	1760	10×25	0.028	2250
	10×16	0.028	1760			
820	10×20	0.028	1960			
1000	10×20	0.025	2250	12.5×20	0.025	2480
1200	10×25	0.030	2300	12.5×25	0.020	2900
1500	12.5×20	0.025	2480	12.5×30	0.018	3450
				16×20.5		3250
1800	12.5×25	0.022	2900	12.5×35	0.016	3570
2200	12.5×30	0.016	3450			
	16×20.5	0.015	3250	16×25.5	0.015	3630
2700	12.5×35	0.012	3570			
3300	16×25.5	0.013	3630			

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°C
容许纹波电流: 毫安/均方根值(mA/rms), 100k 赫兹(Hz), 105°C

Dimension: $\phi D \times L(\text{mm})$
 Impedance: $\Omega/\text{at } 100\text{k Hz, } 20^\circ\text{C}$
 Ripple Current: mA/rms at 100k Hz, 105°C

Dimension and Permissible Ripple Current

Rated Volt.(V _c)	50			63			80			100		
Surge Volt.(V _c)	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.
1										5×11	10.0	55
8.2										5×11	1.40	163
12												
18				5×11	0.88	173				6.3×11	0.57	267
22				5×11	0.80	201						
				6.3×11	0.70	226						
27	5×11	0.34	238									
33	6.3×11	0.30	245							8×12	0.36	462
47	6.3×11	0.22	260	6.3×11	0.35	278				8×16	0.25	585
				8×12	0.22	525				10×12.5		
100	8×12	0.074	724	8×16	0.16	688				10×20	0.12	1040
				8×20	0.16	770				12.5×16	0.13	975
120	8×16	0.061	950	10×12.5	0.15	725				10×23	0.11	1170
150	10×12.5	0.061	979	8×20	0.12	861				12.5×20	0.085	1430
180	8×20	0.046	1190	10×16	0.11	998						
220	10×16	0.042	1370				10×23	0.11	5×11	12.5×25	0.060	1620
270	10×20	0.030	1580	10×20	0.078	1200				12.5×30	0.051	1950
				12.5×16	0.082	1200				16×20.5	0.058	1750
330	10×23	0.028	1870	10×23	0.069	1410				12.5×35	0.043	2140
390				12.5×20	0.060	1570				12.5×40	0.036	2340
										16×25.5	0.044	2210
										18×20.5	0.054	1950
470	12.5×20	0.027	2050	12.5×25	0.043	1990				16×31.5	0.033	2400
560	12.5×25	0.023	2410	12.5×30	0.035	2410				18×25.5	0.038	2270
				16×20.5	0.043	2100				16×35.5	0.029	2600
680	12.5×30	0.021	2860	12.5×35	0.033	2620				18×31.5	0.031	2470
820	12.5×35 16×20.5	0.019 0.023	2960 2730	12.5×40	0.027	2940				16×40	0.027	2860
				16×25.5	0.032	2730				18×35.5	0.027	2860
				18×20.5	0.038	2500						
1000	16×25.5	0.025	3010									
1200				16×31.5	0.024	2990						
				18×25.5	0.031	2800						
1500				16×35.5	0.021	3040						
1800				18×31.5	0.025	3300						
				16×40	0.019	3570						
				18×35.5	0.020	3570						
2200				18×40	0.018	3670						

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°C

容许纹波电流: 毫安/均方根值(mA/rms), 100k 赫兹(Hz), 105°C

■表5 产品编码说明 Part Numbering System

D	SB	827	M	100	S1	A	4	N40	A																									
电容器类别 Capacitors Name	系列名 Series Name	额定静电容量 Capacitance	额定静电容量 容许误差值 Capacitance tolerance	额定电压 Rated voltage	加工形状 Processing shape	电气特性 Electrical characteristics	PET套颜色管 PET Sleeve color	制品尺寸 Case size	内部特征码 Internal use																									
引线型铝电解电容器 Leaded Aluminum Electrolytic Capacitors	KSB Series	范例Example: <table border="1"><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	M=±20%	范例Example: <table border="1"><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	范例Example: <table border="1"><tr><th>Coffee body silver print</th><th>Symbol</th></tr><tr><td>18x40</td><td>N40</td></tr></table>	Coffee body silver print	Symbol	18x40	N40			
Cap.	Symbol																																	
0.1μF	104																																	
2.2μF	225																																	
33μF	336																																	
470μF	477																																	
6800μF	688																																	
82000μF	829																																	
Voltage	Symbol																																	
6.3V	6R3																																	
10V	010																																	
250V	250																																	
Coffee body silver print	Symbol																																	
18x40	N40																																	

△如需了解更详细之介绍, 请联系我们
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