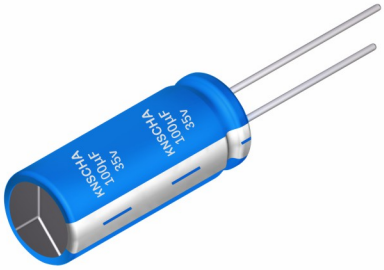
特性/ Features

- 105 °C Miniaturzed,Long Life, High Ripple Current and Low Impedance
- Load Life 1000~2000hours
- For DC GAN fast charger power and PD charger power
- Compliant to the RoHS directive

- 105℃小型化、高纹波和低阻抗品
- 寿命1000~2000小时
- 特别适合氮化镓快充和PD快充
- RoHS指令对策品

ΦD < 13mm



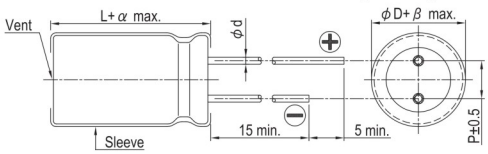
ΦD≥13mm

引线型Radial

■表1 规格表 Specifications

项目 Items	性 能 Performance				
工作温度范围 Category Temperature Range	250~450V				
	-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	3 分钟后 after 3 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 = 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	400	420	450	
	损失角正切值 Tanδ (max)	8	8	8	
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	400	420	450	
	阻抗比 Impedance Ratio Z(-25℃)/Z(+20℃)	6	6	9	
	阻抗比 Impedance Ratio Z(-40℃)/Z(+20℃)				
耐久性 Endurance	保证寿命时间 Test Time	ϕD ≤6.3mm	ϕD > 6.3mm		
		1,000 hours	2,000 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℃环境中供给容许纹波电流值与额定电压 1,000~2,000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 1,000~2,000 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± 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	≤初始规格值的200% Less than 200% of 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			±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)		60(50)	120	1K	10K	100K
Coefficient	3.3~100	0.40	0.50	0.80	0.90	1.00

■表4 标准品一览表 Standard Size

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

WV(Vdc) / Parameter / Cap (μF)	400V(480VF/490VF)			400V(510VF/520VF)		
	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms) 105℃ 100KHZ	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms) 105℃ 100KHZ
4.7	6.3X9	4.20	116	6.3X11	4.20	116
6.8	6.3X11	3.50	128	6.3X12	3.50	128
8.2	6.3X12	2.80	170	6.3X13	2.80	170
10	6.3X14	2.20	185	6.3X15	2.20	185
10	8.2X9	2.20	185	8.2X11	2.20	185
12	6.3X15	2.20	220	6.3X18	2.20	220
12	8.2X10	2.20	220	8.2X13	2.20	220
12	7.2X13	2.20	220	7.2X15	2.20	220
15	6.3X18	2.00	240	6.3X20	2.00	240
15	7.2X15	2.00	240	7.2X16	2.00	240
15	8.2X11	2.00	240	8.2X13	2.00	240
18	6.3X16	1.80	265	6.3X21	1.80	265
18	7.2X15	1.80	265	7.2X17	1.80	265
18	8.2X13	1.80	265	8.2X14	1.80	265
22	6.3X20	1.50	305	7.2x20	1.50	305
22	7.2X18	1.50	305	8.2x16	1.50	305
22	8.2X15	1.50	305	9.0X14	1.50	305
25	7.2X24	1.20	350	8.2X17	1.20	350
27	8.2X17	1.20	350	8.2X18	1.20	350
27	10.2X13	1.20	350	10.2X14	1.20	350
33	7.2x26	1.00	370	8.2X20	1.00	370
33	8.2x19	1.00	370	9.0x23	1.00	370
33	10.2X14	1.00	370	10.2X15	1.00	370
39	8.2x25	1.00	435	8.2x28	1.00	435
39	9.0x18	1.00	435	9.0x25	1.00	435
39	10.2x17	1.00	435	10.0x18	1.00	435
47	8.2x25	1.00	610	8.0x30	1.00	610
47	9.0x23	0.80	610	9.0x25	0.80	610
47	10.2x19	0.80	610	10.2X20	0.80	610
47	13x16	0.80	610	13X18	0.80	610
56	9.0x30	0.60	815	9.0x32	0.60	815
56	10.2x23	0.60	815	10.2x25	0.60	815
56	13X18	0.60	815	13x20	0.60	815
68	13x21	0.50	1000	16x18	0.50	1000
82	16x18	0.50	1220	16x20	0.50	1220
100	16x22	0.40	1315	16x25	0.40	1315

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℃

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

WV(Vdc) / Parameter / Cap (μF)	420V(540VF)			450V(560VF)		
	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms) 105℃ 100KHZ	ΦDxL (mm)	Impedance Ω 20℃,100KHZ	Ripple Current(mArms) 105℃ 100KHZ
4.7	6.2x13	4.00	110	8.2x9	15.70	110
6.8	8.2x9	3.20	125	8.2x12	12.80	125
8.2	8.2x12	3.00	165	8.2x13	9.30	165
10	8.2x13	2.80	185	8.2x13	8.20	185
15	8.2x14	2.50	252	8.2x14	6.10	252
15	10.2x12	2.50	252	10.2x14	6.10	252
18	8.2x15	2.20	290	8.2x16	5.70	290
18	10.2x13	2.20	290	10.2x15	5.70	290
22	8.2x16	2.00	312	8.2x18	5.50	312
22	10.2x14	2.00	312	10.2x16	5.50	312
27	8.2x19	1.80	370	8.2x23	4.50	370
27	10.2x15	1.80	370	10.2x18	4.50	370
33	8.2x23	1.50	430	8.2x25	3.20	430
33	10.2x16	1.50	430	13x20	3.20	430
39	10.2x22	1.20	505	10.2x28	3.20	505
39	13x18	1.20	505	13x22	3.20	505
47	13x19	1.00	610	13x22	2.70	610
47	10.2x23	1.00	610	16x18	2.70	610
56	10.2x25	0.90	830	16x20	1.80	830
56	13x21	0.90	830	16x20	1.80	830
68	13x22	0.80	1000	16x25	1.60	1000
68	16x20	0.80	1000	16x25	1.60	1000
82	13x25	0.70	1160	18x25	1.40	1160
82	16x22	0.70	1160	18x25	1.40	1160
100	18x20	0.50	1315	18x25	1.10	1315
100	16x25	0.50	1315	16x30	1.10	1315

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	PD	476	M	400	S1	A	E	H20	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	KPD Series	范例Example:	M=±20%	范例Example:			宝蓝体银字 Blue body silver print	范例Example:	

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

ϕDxL (mm)	Symbol
10x20	H20

⚠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