KNSCHA®
全球高端电容器制造商

东莞市科尼盛电子有限公司
DONGGUAN KNSCHA ELECTRONICS CO., LTD.

规格承认书
Specification for approval

客户名称: (Customer Name)	
产品名称: (Product Name)	铝电解电容 Aluninum Electrolytic Capacitor
客户料号: (Customer part number)	
科尼盛料号: (KNSCHA number)	SHA560UF400V01EC4381 SHA560UF400V01EC4381
型号规格: (Specifications)	KNSCHA SHA 400V560μF Φ35*40L KNSCHA SHA 400V560μF Φ35*40L

制 造 (Manufacture)			客 户 (Customer)		
Approval			Approval		
拟 制 (Fiction)	审 核 (Chief)	核 准 (Approval)	检 验 (Inspect)	审 核 (Chief)	核 准 (Approval)
刘淑芬	刘军军	徐贵南			

东莞市科尼盛电子有限公司
DONG GUAN KNSCHA ELECTRONICS CO.,LTD.
No.8th floor, A3 building, R&D center (Phase I),
Songshan Lake Intelligent Valley, Liaobu Town, Dongguan City.
TEL:0769-83698067 81035570 FAX: 0769-83861559
Email: sales@knscha.com Website: http://www.knscha.com

SHA Series

Item Name	Rating	Case size	KNSCHA LIFE
SHA560UF400V01EC4381	SHA400V560μF	Φ35*40L	3000 hours

1. Operating Temp. Range

- 25℃ ～ + 105℃

2. Electrical Characteristics

See Table 1.

【Table 1】

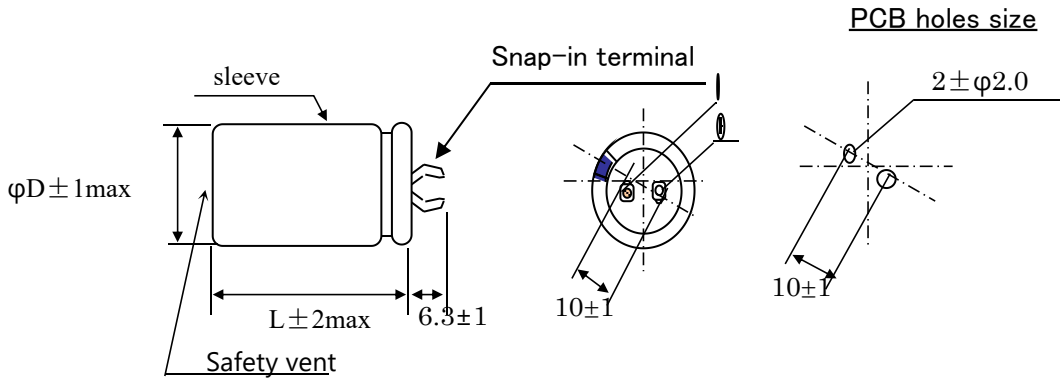
Rated Voltage VDC	Surge Voltage VDC	Nominal Static Capacitance (μF)	ToleranceonCapacitance (%) 20℃ 120Hz	Dissipation Factor (tanδ)max 20℃ 120Hz	Leakage Current 5min. 20℃ (μA)	Permissible Ripple Current (mArms) 105℃120Hz	Impedance(Ω) 100KHZ 20℃
400	500	560	-20～＋20	0.15	4,480	2,250	0.33

容量超过1000μF;每超过1000μF, 损失角增加0.02

3. Shape and Dimensions

SHA Series

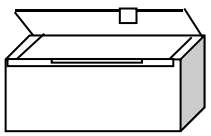
◆ **Shape and Dimensions**



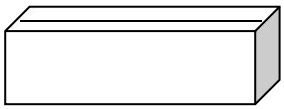
ϕ D	L
35	40

4. Packing shape

4-1 Inner Box



4-2 Outer box



4-3 Quantity per package

Unit (mm)

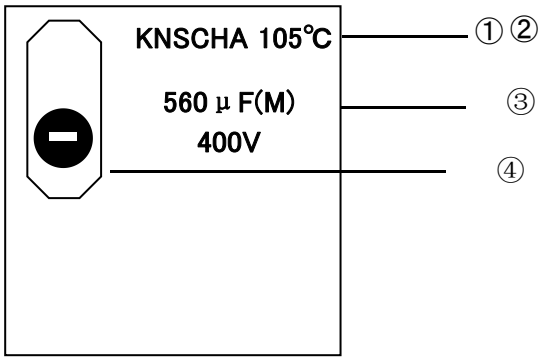
Φ D	L	Out box
35	40	448pcs

5. Marking

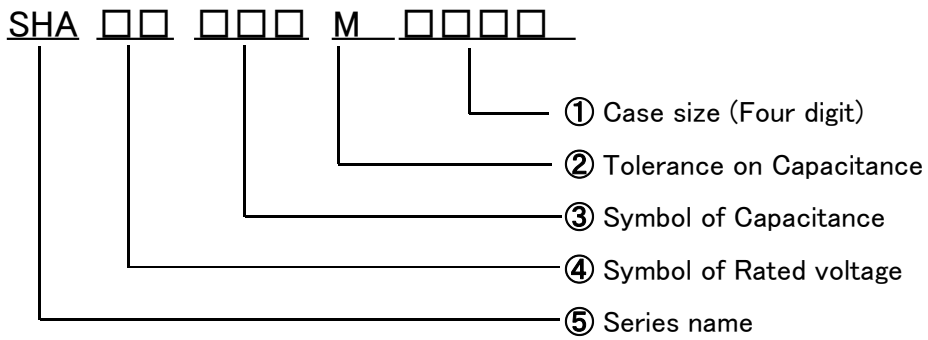
Following items are printed with white color on coffee color sleeve

① Trade Mark
② Max Operating Temp.
③ Rated voltage & Nominal Capacitance
Symbol of Capacitance Tolerance（M）
④ Polarity (negative)

Example of Marking



6. Type numbering system



④

Volt.	Symbol
400	2W

③

Capacitance	Example
560	561

①

Case size (Four digit) Example

Case size	Symbol
Φ35*40	3540

②

Tolerance on Capacitance

M	±20%

7. Characteristics

7-1.

<table>
<tr><th>No.</th><th>Item</th><th>Performance</th><th>Test Method</th></tr>
<tr><td>1</td><td>Leakage Current</td><td>I= 4,480 μA (I=0.02CV) μA

Whichever is smaller (After 5min)</td><td>Protection Resistor : 1000±10Ω
Applied Volt : Rated Voltage
Mesauring time : 5minutes</td></tr>
<tr><td>2</td><td>Static Capacitance</td><td>- 20% ～ + 20%</td><td>Measured Frequency : 120Hz±20%

Measured Voltage
≤ 0.5Vrms, 1.5 ～ 2.0VDC</td></tr>
<tr><td>3</td><td>Dissiption Factor (tanδ)</td><td>0.15 and Under</td><td>Same as condition of Capacitors</td></tr>
<tr><td>4</td><td>High Temp. Load Charac- teristics</td><td><table><tr><td>Leakage Current</td><td>≦the value specified in Table 1</td></tr><tr><td>Cap. Change</td><td>≦±20% of initial value</td></tr><tr><td>Dissipation Factor</td><td>≦200% of value specified in Table</td></tr><tr><td>Appearance</td><td>No rSHArkable abnormality</td></tr></table></td><td>Test Temp. : 105±2℃
Applied voltage: Rated voltage
Test Time :3,000 hours
+72, -0 hours</td></tr>
<tr><td>5</td><td>High Temp. no load Charac- teristics</td><td><table><tr><td>Leakage Current</td><td>≦the value specified in Table 1</td></tr><tr><td>Cap. Change</td><td>≦±15% of initial value</td></tr><tr><td>Dissipation Factor</td><td>≦150% of value specified in Table</td></tr><tr><td>Appearance</td><td>No rSHArkable abnormality</td></tr></table></td><td>Test Temp. : 105±2℃
No voltage applied
Test Time : 1,000 hours
+24, -0 hurs</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>6</td><td>Impedance Ratio</td><td colspan="2"><table><tr><td>W V</td><td>400</td></tr><tr><td>Z-25℃/Z+20℃</td><td>8</td></tr><tr><td>Z-40℃/Z+20℃</td><td>12</td></tr></table></td></tr>
<tr><td>7</td><td>Temperature Charac - teristics</td><td colspan="2"><table><tr><th>Stage</th><th>Item</th><th>Performance</th></tr><tr><td>2</td><td>Impedance Ratio</td><td>less than the value mentioned in 4-5,</td></tr><tr><td>4</td><td>Cap, Change</td><td>≦±25% against value in stage 3</td></tr></table>
After the capacitor is held at tempereture of each stage and reaches temperature stability, measure performance.
<table><tr><th>Stage</th><th>Test Temp(℃)</th></tr><tr><td>1</td><td>20±2</td></tr><tr><td>2</td><td>-40±3;</td></tr><tr><td>3</td><td>20±2</td></tr><tr><td>4</td><td>105±2</td></tr><tr><td>5</td><td>20±2</td></tr><tr><td></td><td></td></tr></table></td></tr>
<tr><td>8</td><td>Surge Voltage</td><td colspan="2"><table><tr><td>Item</td><td>PerforSHAnce</td></tr><tr><td>Leakage Current</td><td>≤ the initial specified value</td></tr><tr><td>Cap, Change</td><td>≤ ±15% against value before test</td></tr><tr><td>Dissipation Factor</td><td>≤ the initial specified value</td></tr><tr><td>Appearance</td><td>No rSHAkable abnormality</td></tr></table>
Test Temp. 15～35℃ Test volt. Surge Volt.Specified in 2
Voltage apply. 1,000times of chage for 30±5sec, under frequency of 6±0.5sec, and discharge for 5min30sec.</td></tr>
</table>

7-2.Characteristics

No.	Item	Performance		Test Method
9	Vibration Resistance	Capacitance	Stability required	
		Cap. Change	≤±5% of the initial specified value	
		Appearance	No rSHArkable abnormality	
		Frequency : 10～55Hz/1min. Width of vibration, 1.5mm Direction and duration X, Y and Z directions, each for 2 hours (Total 9 hours)		
10	Solderbility	3/4 area of surrounding directions of surface should be covered with new solder.		Solder: Sn-Ag, Sn-Cu Type Soldering Temp : 240±5℃ Dipping degree : 2～2.5mm Flux : Ethanol solution (JIS K8101) or Isopropylalchol (JIS K8839) solution of Rosin (JIS K5902)
11	Resistance to Soldering	Leakage Current	≦ Initial specified value	Soldering Temp. 280±5℃ Soldering Time . 10±1sec.
		Cap. Change	≦±10% of initial value	
		Dissipation Factor	≦ Initial specified in value	
		Appearance	No rSHArkable abnormality	
12	Resistance to Humidity	Leakage Current	≦ Initial specified value	Test Temp. : 40±2℃ Humidity 90～95% Test Time : 500 ± 8 hours After the above condition,restored to normal temp, and then measured.
		Cap. Change	≦±15% of initial value	
		Dissipation Factor	≦ Initial spesified value	
		Appearance	No rSHArkable abnormality	
13	Perssure valve moment charact-erstics	There must not be thing ignition, scattering the resolution that that case works safely		Dcmethod: impress the reverse voltage and of 1A, I cancel an electric current.

8 Related Standards JIS C 5141

9 Marking on packing box

① Item name
② Series name
③ Rated Voltage
④ Nominal Static Capacitance
⑤ Case size
⑥ Lot No.
⑦ Quantity

10 Soldeing

10-1 Soldering by soldering iron
Temperature of iron top : 270～350℃
Operating time : within 3 sec.

10-2 Flow soldering.
Preheat : PCB surface temperature 120℃±5℃
Solder Temp : 260℃±5℃
Solder Dipping Temp. : 2～4sec.

11 Cleaning of PC boad after soldering

Using follwing solvents is possible but make sure followingcondition
Solvent
IPA or Alcoholic agent like Pinealpha ST-100S, Cleanthrough 750H, 750L, 710M, 750K, or Technocare FRW-14～17

① Cleaning should be made by ultrasonic within 5min, at the temperature less then 60℃.
② Control of pollution is necessary (conductivity,pH, specific gravity, water volume)
③ Please do not keep near cleaning agent. Please do not store in air-tight container. Please let it dry by hot air at the temperature less than maximum operating temp.

12 Effective life for storage

Storage conditions:
① Temperature range must be between 5-35℃
② Relative humidity must be less than 75%
③ Must be stored indoor
④ Must be free from water, oil or salt water
⑤ Must be free from toxic gasses (hydrogen sulfide, sulfurous acid, chlorine, ammonium, etc.)
⑥ Must be free from ozone, ultraviolet rays or any other radiation
⑦ Must be kept in capacitor original package

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

KNSCHA:

RVT100UF35V34RV0158 225RV0058 MMK103J3AC3KN156G2 RVT100UF16V67RV0016 189RV0063 FZ100UF35V90RV0145 MPX155K31D7KN15800 VT10UF16V167RV0128 XT100UF10V90RV0060 RVT4.7UF100V67RV0118 178MU0009 225RV0026 225RV0031 225RV0065 RVT100UF50V67RV0040 126RV0004 225RV0029 RVT22UF50V67RV0028 SHG330UF50V01EC2021 126RV0008 189RV0036 225RV0041 MPP104J2J15AJ22600 MPX472K31C2KN15600 RVE100UF35V67RV0072 XT220UF50V90RV0078 XT47UF35V90RV0081 01EC4294SHC1000UF25V FZ220UF50V90RV0126 MEB105J63V82CB0235