

# 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<br>Customer Name |                                                                    |
| 产 品 名 称<br>Product Name  | 高分子固态电解电容器<br>Conductive Polymer Aluminum Electrolytic Capacitors  |
| 客 户 料 号<br>Customer P/N  |                                                                    |
| 科 尼 盛 料 号<br>KNSCHA P/N  | 217EC0041                                                          |
| 型 号 规 格<br>Product Type  | 50V/100 $\mu$ F 2000Hours@105 $^{\circ}$ C 贴片型,8x10.5mm KHV Series |
| 日 期<br>Date              | 2024年10月24日                                                        |

|                    |                 |
|--------------------|-----------------|
| 制 造<br>Manufacture |                 |
| 核 准<br>APPROVAL    | 制 作<br>PREPARED |
| * 工程课 *            |                 |
| 王 勃 刘 国 栋          |                 |

|                                |                |                 |
|--------------------------------|----------------|-----------------|
| 客 户 承 认 栏<br>CUSTOMER APPROVED |                |                 |
| 核 准<br>APPROVED                | 确 认<br>CHECKED | 经 办<br>DESIGNED |
|                                |                |                 |

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# KNSCHA

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## KNSCHA ELECTRONICS CO., LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

### Aluminum Electrolytic Capacitors

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



### Film Capacitors

- Source Manufacturer
- 10+ Years Experience



c **UL** <sup>®</sup> US

**EN** <sup>10</sup>

**DE**

**CQC**

**K**

**TÜV**

# KNSCHA

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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

Empowering The World



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## KNSCHA ELECTRONICS CO., LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

**广东科尼盛电子科技有限公司**  
**KNSCHA ELECTRONICS CO.,LIMITED**

# IATF16949:2016

# ISO9001:2015

# ISO14001:2015

[illegible]

## 特性/ Features

- Load Life: 2000 hours at 105°C
- Ultra low ESR with Large Ripple Current, SMD type
- RoHS Compliant
- Suitable for Switching Power Supply, DC/DC Converter, PDP /CD TV and Digital equipment.
- 105°C 负荷寿命2000小时
- 低阻抗、大纹波电流
- 贴片型固态电容器
- 符合RoHS指令



ΦD=5~8mm



ΦD=10mm

Marking color: Red

贴片型SMD

■ 表1 规格表 Specifications

| 项目 Items                                                                                | 性能 Performance                                                   |                                                          |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------|
| 工作温度范围<br>Operating Temperature Range                                                   | -55°C ~ +105°C                                                   |                                                          |
| 额定电压范围<br>Rated Voltage Range                                                           | 2.5~100V                                                         |                                                          |
| 额定静电容量容许误差值<br>Capacitance Tolerance                                                    | ± 20% (120 Hz, 20°C)                                             |                                                          |
| 漏电流<br>Leakage Current (at 20°C)                                                        | $I \leq 0.2CV$ (uA. After 2 minutes)<br>充电2分钟后漏电流 $I \leq 0.2VC$ |                                                          |
| 损失角正切值<br>Tanδ (at 120 Hz, 20°C)                                                        | Not to exceed the value specified<br>不超过指定值                      |                                                          |
| ESR(100KHz)                                                                             | Not to exceed the value specified<br>不超过指定值                      |                                                          |
| 耐久性<br>Endurance<br>不超过额定电压<br>105°C, 2000H at rated voltage 105°C 2000h                | Capacitance Change                                               | Within ±20% of the value before test<br>测试前的值的±20%以内     |
|                                                                                         | Leakage Current                                                  | Not to exceed the value specified<br>不超过指定值              |
|                                                                                         | ESR                                                              | Not to exceed 150% of the value specified<br>不超过指定值的150% |
|                                                                                         | Dissipation Factor                                               | Not to exceed 150% of the value specified<br>不超过指定值的150% |
| 耐湿性<br>Moisture Resistance<br>Stored at 60°C, RH90~95% 2000H<br>存放在60°C, RH90~95% 2000h | Capacitance Change                                               | Within ±20% of the value before test<br>测试前的值的±20%以内     |
|                                                                                         | Leakage Current                                                  | Not to exceed the value specified<br>不超过指定值              |
|                                                                                         | ESR                                                              | Not to exceed 150% of the value specified<br>不超过指定值的150% |
|                                                                                         | Dissipation Factor                                               | Not to exceed 150% of the value specified<br>不超过指定值的150% |

■ 表2 纹波电流的频率系数  
Frequency Coefficient For Ripple Current

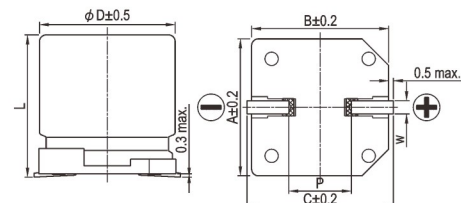
| Frequency   | 120Hz≤freq.<br><10KHz | 1KHz≤freq.<br><10KHz | 10KHz≤freq.<br><100KHz | 100KHz≤freq.<br><300KHz |
|-------------|-----------------------|----------------------|------------------------|-------------------------|
| Coefficient | 0.05                  | 0.3                  | 0.7                    | 1                       |

■ 表3 外形尺寸 Dimensions(mm)

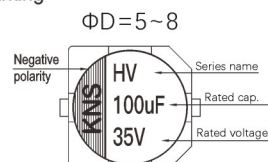
Lead Spacing and Diameter

Unit: mm

| ΦD | 5       | 6.3     | 6.3     | 8        | 10       |
|----|---------|---------|---------|----------|----------|
| A  | 5.3     | 6.6     | 6.6     | 8.3      | 10.3     |
| B  | 5.3     | 6.6     | 6.6     | 8.3      | 10.3     |
| C  | 5.7     | 7.2     | 7.2     | 9.0      | 10.0     |
| P  | 1.5     | 2.2     | 2.2     | 3.1      | 4.5      |
| L  | 5.8±0.3 | 5.8±0.3 | 7.7±0.3 | 10.5±0.3 | 10.5±0.3 |
| W  | 0.5~0.8 |         |         | 0.8~1.0  |          |



Marking



ΦD=10

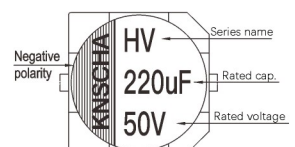


表4 标准品一览表 Standard Size

Standard Ratings

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

| Rated Volt.<br>(V) | Capacitance<br>( $\mu$ F) | Size<br>$\phi$ D $\times$ L(mm) | $\tan\delta$<br>(120Hz, 20°C) | L C<br>( $\mu$ A) | ESR<br>(m $\Omega$ /at 100k Hz,20°C max.) | Rated R. C.<br>(mA/rms at 100k Hz, 105°C) |
|--------------------|---------------------------|---------------------------------|-------------------------------|-------------------|-------------------------------------------|-------------------------------------------|
| 2.5V               | 330                       | 6.3*5.8                         | 0.10                          | 500               | 28                                        | 2400                                      |
|                    | 330                       | 6.3*7.7                         | 0.10                          | 500               | 25                                        | 2550                                      |
|                    | 390                       | 6.3*7.7                         | 0.10                          | 500               | 25                                        | 2650                                      |
|                    | 470                       | 6.3*7.7                         | 0.10                          | 500               | 22                                        | 2750                                      |
|                    | 560                       | 6.3*5.8                         | 0.10                          | 500               | 25                                        | 2600                                      |
| 6.3                | 100                       | 6.3X5.8                         | 0.12                          | 500               | 38                                        | 1300                                      |
|                    | 220                       | 5X5.8                           | 0.12                          | 500               | 42                                        | 1450                                      |
|                    |                           | 6.3X5.8                         | 0.12                          | 500               | 38                                        | 1600                                      |
|                    | 330                       | 6.3X5.8                         | 0.12                          | 500               | 28                                        | 1900                                      |
|                    | 470                       | 6.3X7.7                         | 0.12                          | 592               | 25                                        | 2750                                      |
|                    | 560                       | 6.3X7.7                         | 0.12                          | 705               | 25                                        | 3100                                      |
|                    | 680                       | 6.3X7.7                         | 0.12                          | 857               | 25                                        | 3500                                      |
|                    | 820                       | 6.3X7.7                         | 0.12                          | 1033              | 22                                        | 3750                                      |
|                    |                           | 8X10.5                          |                               |                   | 20                                        | 4100                                      |
|                    | 1000                      | 8X10.5                          | 0.12                          | 1260              | 20                                        | 4350                                      |
|                    |                           | 10X10.5                         |                               |                   | 20                                        | 4500                                      |
|                    | 1500                      | 8X10.5                          | 0.12                          | 1890              | 20                                        | 4550                                      |
|                    | 2200                      | 10X10.5                         | 0.12                          | 2772              | 20                                        | 4800                                      |
| 10V                | 100                       | 6.3X5.8                         | 0.12                          | 500               | 48                                        | 1250                                      |
|                    | 220                       | 6.3X5.8                         | 0.12                          | 500               | 38                                        | 1650                                      |
|                    |                           | 6.3X7.7                         |                               |                   | 35                                        | 2150                                      |
|                    | 330                       | 6.3X7.7                         | 0.12                          | 660               | 32                                        | 2350                                      |
|                    |                           | 8X10.5                          |                               |                   | 28                                        | 2950                                      |
|                    | 470                       | 6.3X7.7                         | 0.12                          | 940               | 32                                        | 2600                                      |
|                    |                           | 8X10.5                          |                               |                   | 28                                        | 3100                                      |
|                    | 560                       | 8X10.5                          | 0.12                          | 1120              | 28                                        | 3350                                      |
|                    | 680                       | 8X10.5                          | 0.12                          | 1360              | 28                                        | 3450                                      |
|                    | 820                       | 8X10.5                          | 0.12                          | 1640              | 28                                        | 3600                                      |
|                    | 1000                      | 8X10.5                          | 0.12                          | 2000              | 25                                        | 3950                                      |
|                    | 1500                      | 10X10.5                         | 0.12                          | 3000              | 25                                        | 4100                                      |

制品尺寸与容许纹波电流一览表

尺寸: 直径( $\phi$ 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.<br>(V) | Capacitance<br>( $\mu$ F) | Size<br>$\phi D \times L$ (mm) | $\tan\delta$<br>(120Hz, 20°C) | L C<br>( $\mu$ A) | ESR<br>(m $\Omega$ /at 100k Hz,20°C max.) | Rated R. C.<br>(mA/rms at 100k Hz, 105°C) |
|--------------------|---------------------------|--------------------------------|-------------------------------|-------------------|-------------------------------------------|-------------------------------------------|
| 16V                | 10                        | 6.3X5.8                        | 0.12                          | 500               | 75                                        | 650                                       |
|                    | 47                        | 5X5.8                          | 0.12                          | 500               | 65                                        | 650                                       |
|                    |                           | 6.3X5.8                        | 0.12                          | 500               | 58                                        | 950                                       |
|                    | 100                       | 5X5.8                          | 0.12                          | 500               | 68                                        | 780                                       |
|                    |                           | 6.3X5.8                        | 0.12                          | 500               | 55                                        | 1150                                      |
|                    | 150                       | 6.3X5.8                        | 0.12                          | 500               | 48                                        | 1500                                      |
|                    |                           | 6.3X7.7                        | 0.12                          | 500               | 38                                        | 2100                                      |
|                    | 220                       | 6.3X7.7                        | 0.12                          | 704               | 35                                        | 2450                                      |
|                    |                           | 6.3X7.7                        | 0.12                          | 864               | 35                                        | 2500                                      |
|                    | 270                       | 8*10.5                         |                               |                   | 32                                        | 2720                                      |
|                    | 330                       | 6.3X7.7                        | 0.12                          | 1056              | 35                                        | 2550                                      |
|                    |                           | 8X10.5                         |                               |                   | 32                                        | 2800                                      |
|                    |                           | 10X10.5                        |                               |                   | 30                                        | 3350                                      |
|                    | 470                       | 8X10.5                         | 0.12                          | 1504              | 28                                        | 2900                                      |
|                    |                           | 10X10.5                        | 0.12                          |                   | 25                                        | 3500                                      |
|                    | 560                       | 8X10.5                         | 0.12                          | 1792              | 28                                        | 3050                                      |
|                    |                           | 10X10.5                        |                               |                   | 25                                        | 3750                                      |
|                    | 680                       | 8X10.5                         | 0.12                          | 2176              | 28                                        | 3200                                      |
|                    |                           | 10X10.5                        |                               |                   | 25                                        | 3850                                      |
|                    | 820                       | 8X10.5                         | 0.12                          | 2624              | 28                                        | 3350                                      |
|                    |                           | 10X10.5                        | 0.12                          |                   | 25                                        | 4100                                      |
|                    | 1000                      | 10X10.5                        | 0.12                          | 3200              | 25                                        | 4350                                      |
| 25V                | 10                        | 6.3X5.8                        | 0.12                          | 500               | 78                                        | 550                                       |
|                    | 22                        | 5X5.8                          | 0.12                          | 500               | 65                                        | 650                                       |
|                    | 47                        | 6.3X5.8                        | 0.12                          | 500               | 48                                        | 850                                       |
|                    | 68                        | 5X5.8                          | 0.12                          | 500               | 78                                        | 680                                       |
|                    | 100                       | 6.3X5.8                        | 0.12                          | 500               | 48                                        | 950                                       |
|                    |                           | 6.3X7.7                        |                               |                   | 45                                        | 1650                                      |
|                    | 220                       | 6.3X7.7                        | 0.12                          | 1100              | 35                                        | 1950                                      |
|                    |                           | 8X10.5                         |                               |                   | 32                                        | 2500                                      |
|                    | 330                       | 8X10.5                         | 0.12                          | 1650              | 32                                        | 2650                                      |
|                    | 470                       | 8X10.5                         | 0.12                          | 2350              | 30                                        | 2800                                      |
|                    |                           | 10X10.5                        |                               |                   | 28                                        | 3150                                      |
|                    | 560                       | 8X10.5                         | 0.12                          | 2800              | 28                                        | 3050                                      |
|                    | 680                       | 8X10.5                         | 0.12                          | 3400              | 28                                        | 3200                                      |
|                    |                           | 10X10.5                        |                               |                   | 25                                        | 3350                                      |
|                    | 820                       | 10X10.5                        | 0.12                          | 4100              | 25                                        | 3650                                      |
|                    | 1000                      | 10X10.5                        | 0.12                          | 5000              | 25                                        | 3800                                      |

制品尺寸与容许纹波电流一览表

尺寸：直径( $\phi D$ ) $\times$ 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.<br>(V) | Capacitance<br>(μF) | Size<br>ΦDxL(mm) | tanδ<br>(120Hz, 20°C) | L C<br>(μA) | ESR<br>(mΩ/at 100k Hz,20°C max.) | Rated R. C.<br>(mA/rms at 100k Hz, 105°C) |
|--------------------|---------------------|------------------|-----------------------|-------------|----------------------------------|-------------------------------------------|
| 35V                | 10                  | 6.3X5.8          | 0.12                  | 500         | 78                               | 480                                       |
|                    | 22                  | 5X5.8            | 0.12                  | 500         | 85                               | 410                                       |
|                    |                     | 6.3X5.8          | 0.12                  | 500         | 58                               | 550                                       |
|                    | 47                  | 6.3X5.8          | 0.12                  | 500         | 58                               | 750                                       |
|                    |                     | 6.3X7.7          |                       |             | 52                               | 1150                                      |
|                    | 68                  | 6.3X7.7          | 0.12                  | 500         | 48                               | 1300                                      |
|                    | 100                 | 6.3X7.7          | 0.12                  | 700         | 48                               | 1500                                      |
|                    |                     | 8X10.5           |                       |             | 38                               | 1950                                      |
|                    | 150                 | 8X10.5           | 0.12                  | 1050        | 38                               | 2100                                      |
|                    | 220                 | 8X10.5           | 0.12                  | 1540        | 38                               | 2300                                      |
|                    | 330                 | 8X10.5           | 0.12                  | 2310        | 35                               | 2450                                      |
|                    |                     | 10X10.5          |                       |             | 32                               | 2700                                      |
|                    | 470                 | 8X10.5           | 0.12                  | 3290        | 35                               | 2650                                      |
|                    |                     | 10X10.5          |                       |             | 28                               | 2950                                      |
| 560                | 10X10.5             | 0.12             | 3920                  | 28          | 3350                             |                                           |
| 50V                | 2.2                 | 5X5.8            | 0.12                  | 500         | 85                               | 290                                       |
|                    | 10                  | 6.3X5.8          | 0.12                  | 500         | 78                               | 350                                       |
|                    | 22                  | 6.3X5.8          | 0.12                  | 500         | 58                               | 460                                       |
|                    | 47                  | 6.3X7.7          | 0.12                  | 500         | 45                               | 950                                       |
|                    | 100                 | 8X10.5           | 0.12                  | 1000        | 38                               | 1650                                      |
|                    |                     | 10X10.5          |                       |             | 35                               | 1800                                      |
|                    | 150                 | 8X10.5           | 0.12                  | 1500        | 35                               | 1900                                      |
|                    |                     | 10X10.5          |                       |             | 30                               | 2150                                      |
|                    | 220                 | 10X10.5          | 0.12                  | 2200        | 28                               | 2350                                      |
| 63V                | 8.2                 | 5X5.8            | 0.12                  | 500         | 68                               | 310                                       |
|                    | 10                  | 6.3X5.8          | 0.12                  | 500         | 68                               | 310                                       |
|                    | 22                  | 6.3X7.7          | 0.12                  | 500         | 58                               | 420                                       |
|                    | 47                  | 8X10.5           | 0.12                  | 592         | 48                               | 1100                                      |
|                    | 56                  | 8X10.5           | 0.12                  | 705         | 45                               | 1250                                      |
|                    | 100                 | 8X10.5           | 0.12                  | 1260        | 38                               | 1500                                      |
|                    |                     | 10X10.5          |                       |             | 32                               | 1600                                      |
|                    | 150                 | 10X10.5          | 0.12                  | 1890        | 28                               | 1950                                      |
| 80V                | 10                  | 6.3X7.7          | 0.12                  | 500         | 68                               | 290                                       |
|                    | 47                  | 8X10.5           | 0.12                  | 752         | 58                               | 980                                       |
|                    |                     | 10X10.5          |                       |             | 55                               | 1250                                      |
|                    | 100                 | 10X10.5          | 0.12                  | 1600        | 48                               | 1500                                      |
| 100V               | 10                  | 6.3X5.8          | 0.12                  | 500         | 82                               | 225                                       |
|                    | 22                  | 6.3X7.7          | 0.12                  | 500         | 48                               | 320                                       |
|                    |                     | 8X10.5           |                       |             | 45                               | 660                                       |
|                    | 47                  | 10X10.5          | 0.12                  | 940         | 45                               | 1050                                      |

制品尺寸与容许纹波电流一览表

尺寸: 直径( $\phi D$ ) $\times$ 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