

# 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  | 217EC0033                                                           |
| 型 号 规 格<br>Product Type  | 16V/100 $\mu$ F 2000Hours@105 $^{\circ}$ C 贴片型,6.3x5.8mm 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 |
|                                |                |                 |

🌐 网址: [www.knscha.com](http://www.knscha.com)    ✉ 邮箱: [sales@knscha.com](mailto:sales@knscha.com)

☎ 电话: 0769-81035570 83698067    📠 传真: 0769-83861559

🏢 营业中心: 东莞市寮步镇香市科技产业园松湖智谷研发中心A3栋8层  
8th floor,Building A3,Songshan Lake Intelligent Valley,Dongguan,  
Guangdong,China

🏠 总部基地: 广东省东莞市东坑镇农横路7号汇金展拓科技园  
Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan,  
Guangdong Province, China

🏠 杭州分公司: 浙江省杭州市余杭区临平余之城1栋20楼  
🏠 厦门办事处: 福建省厦门市集美区厦门软件园三期F12栋901-8室



联系我们 Contact Us

📞 投诉和建议: 13662958961 (微信同号)



# 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**

**KE**

**TÜV**



# KNSCHA

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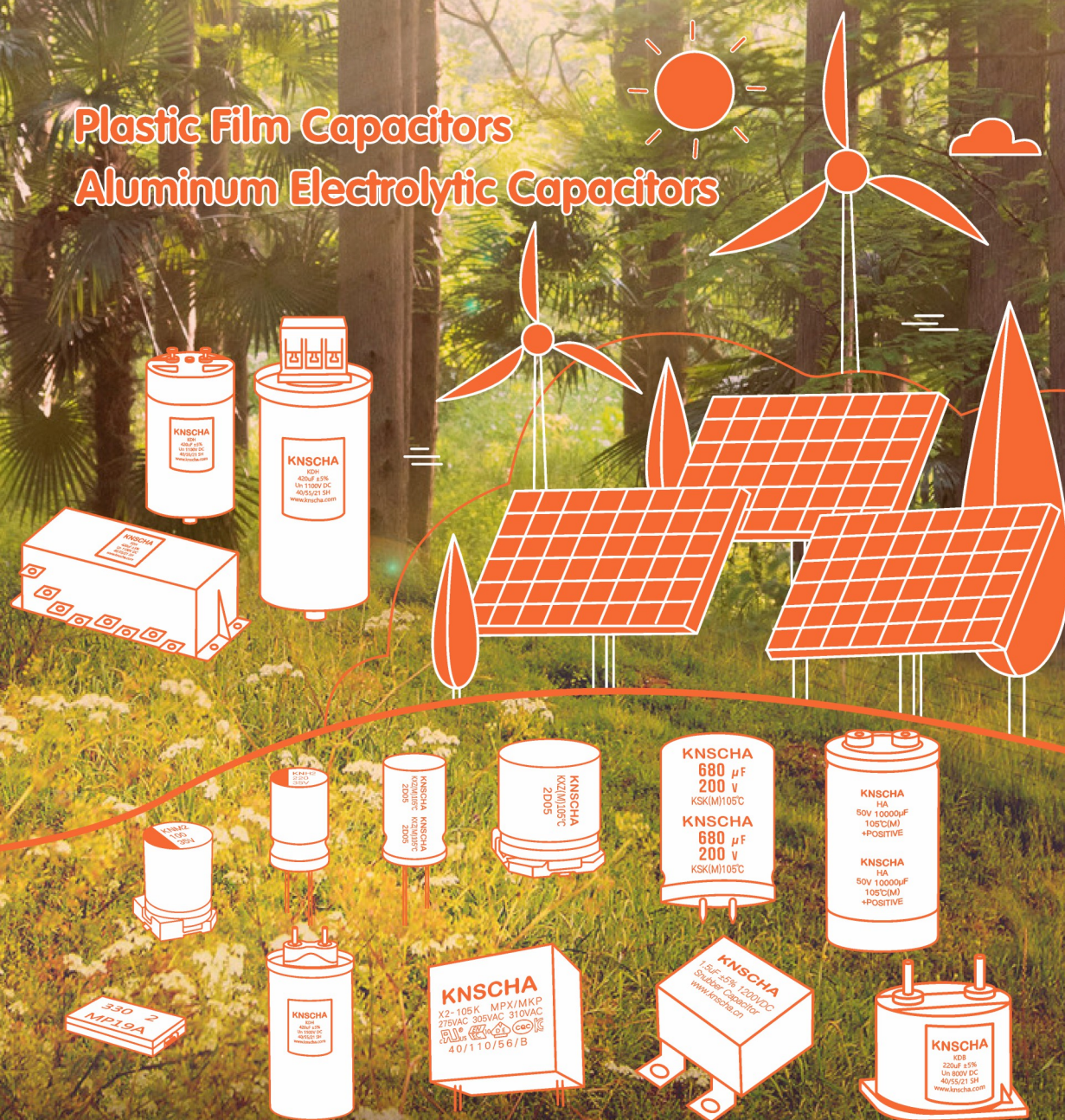
KNSCHA ELECTRONICS CO.,LIMITED is a manufacturing high-tech enterprise founded in 1987 with aluminum electrolytic capacitors and film capacitors as its core for automotive, renewable energy, industrial and consumer electronics. We are working on developing aluminum electrolytic capacitors and plastic 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



**Cathy Ren** (Sales Director)  
Mobile: + 86-136 8622 1567

☎ +86(769)83698067

🌐 [www.knscha.cn](http://www.knscha.cn)

📱 Whatsapp: +8613686221567

🏢 8th floor, Building A3, Songshan Lake Intelligent Valley, Dongguan, Guangdong, China

🏠 Building 3, No.7 Nongheng Road, Dongkeng Town, Dongguan, Guangdong Province, China

☎ +86(769)83861559

✉ [cathy@knscha.com](mailto:cathy@knscha.com)

💬 Skype: knscha



## 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

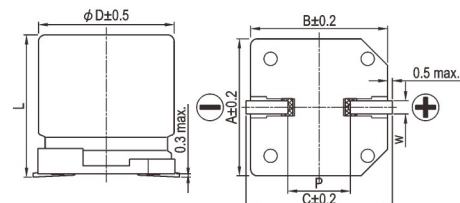
| Frequency   | 120Hz≤freq.<br><10KHz | 1KHz≤freq.<br><10KHz | 10KHz≤freq.<br><100KHz | 100KHz≤freq.<br><300KHz |
|-------------|-----------------------|----------------------|------------------------|-------------------------|
| Coefficient | 0.05                  | 0.3                  | 0.7                    | 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=5~8

ΦD=10

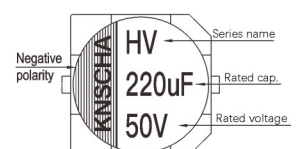
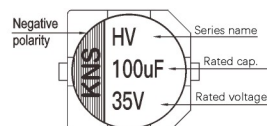




表4 标准品一览表 Standard Size

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                                      |
|                    | 270                       | 6.3X7.7                        | 0.12                          | 864               | 35                                        | 2500                                      |
|                    |                           | 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                        |                               |                   | 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                        |                               |                   | 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>( $\mu$ 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) |
|--------------------|---------------------------|--------------------------------|-------------------------------|-------------------|-------------------------------------------|-------------------------------------------|
| 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                                      |
| 50V                | 560                       | 10X10.5                        | 0.12                          | 3920              | 28                                        | 3350                                      |
|                    | 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                                      |
| 63V                | 220                       | 10X10.5                        | 0.12                          | 2200              | 28                                        | 2350                                      |
|                    | 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                                      |
| 80V                | 150                       | 10X10.5                        | 0.12                          | 1890              | 28                                        | 1950                                      |
|                    | 10                        | 6.3X7.7                        | 0.12                          | 500               | 68                                        | 290                                       |
|                    | 47                        | 8X10.5                         | 0.12                          | 752               | 58                                        | 980                                       |
|                    |                           | 10X10.5                        |                               |                   | 55                                        | 1250                                      |
| 100V               | 100                       | 10X10.5                        | 0.12                          | 1600              | 48                                        | 1500                                      |
|                    | 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