

# KNSCHA

Empowering The World



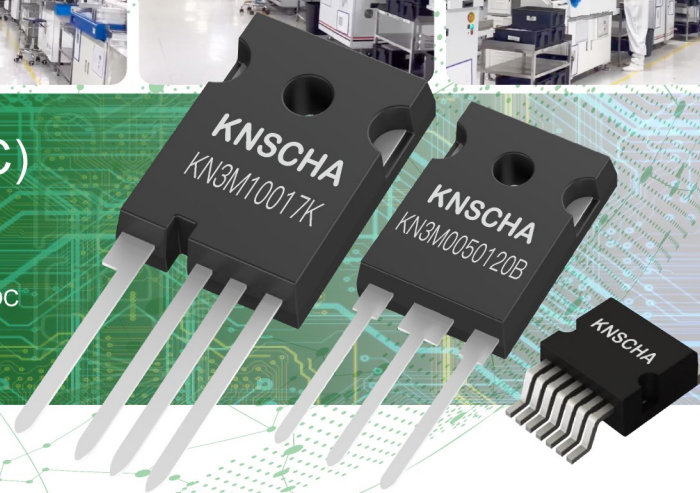
## Silicon Carbide (SiC) MOSFETs

VDC:650VDC,1200VDC,1700VDC  
Package:TO-263-7,TO-247-3,TO-247-4



## Silicon Carbide (SiC) Diodes

VDC:650VDC,900VDC,1200VDC,1700VDC  
Package:DFN5×6,DFN8×8,TO-252-2L,  
TO-263-2L,TO-220-2,TO-247-2,TO-247-3



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## KNSCHA ELECTRONICS CO.,LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

# KNSCHA

Empowering The World

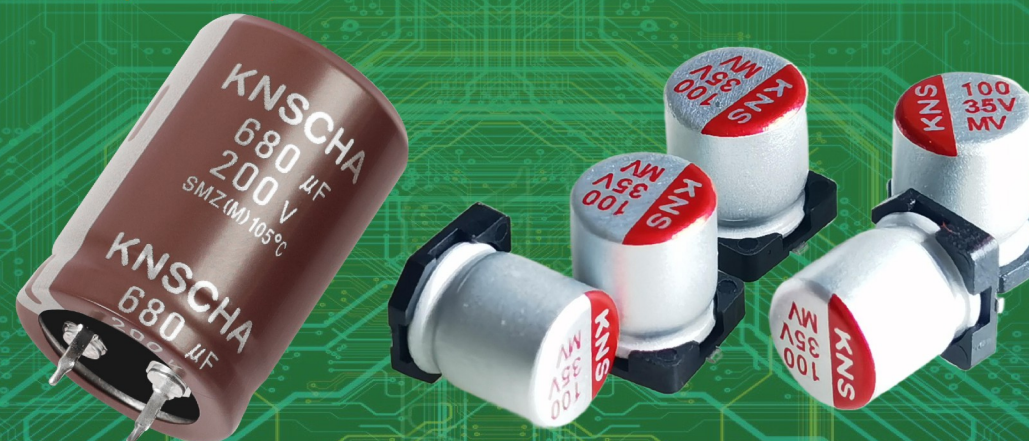
## KNSCHA ELECTRONICS CO.,LIMITED

IATF16949:2016 ISO9001:2015 ISO14001:2015

# KNSCHA KNS

## Aluminum Electrolytic Capacitors

## Conductive Polymer Aluminum Solid Capacitors





# | KNSCHA History

KNSCHA has a long history in manufacturing passive electronics components in China.

- 1987**
  - KNSCHA started in selling all kinds of Electronic Components from our headquarters in Hong Kong.
- 2007**
  - Retkcon Electronics Co.,Ltd was founded in Dongguan, Guangdong(China),Expanding the Production Capacity of Radial Aluminum Electrolytic Capacitors.
- 2010**
  - Launched the smallest size SHW and SYJ Series TiO<sub>2</sub> Metallic Electrolytic Capacitor on the world , replacing the Polymer Solid Electrolytic Capacitors in some applications for better cost effective.
- 2013**
  - KNSCHA ELECTRONICS CO.,LIMITED was established in Dongguan, Guangdong(China) for Film Capacitors.
  - X2 Capacitors successfully applied VDE, ENEC10, UL, KC and CQC Certifications.
  - Launched 310VAC Metallized Polypropylene Film Capacitor - Class X2, THB Grade IIIB (85°C, 85% RH, 1000h at UNDC) Series For Capacitive Divider.
- 2014**
  - JK-ET Electronic Co.,Ltd. was established in Dongguan, Guangdong(China) for Ceramic Capacitors , Metal Oxide Varistors and TMOV.
  - Ceramic Capacitors Y1 and Y2 applied VDE, ENEC10, UL and CQC Certifications.
  - Varistors applied VDE, UL and CQC Certifications.
- 2015**
  - Set up sales subsidiary company in Hangzhou, Zhejiang(China).
  - Launch KNS SMD Aluminum Electrolytic Capacitors production line.
- 2017**
  - Launched SMD power inductors and transformers
  - KNSCHA Capacitors adopted by State Grid of China. Evaluated as National High-tech Enterprise in China.
  - KNSCHA Capacitors are adopted by Panasonic, Siemens, Philips, Nokia, Schneider, Haier and Lenovo.
- 2019**
  - Started to produce LIC Series Lithium ion capacitors replaced super capacitors (EDLC) and lithium batteries.
  - Launched KNSCHA SMD plastic varistors with a packaging size of 2220,3220,3225,4032 replacing the 7D and 10D series of radial type varistors. It has obtained UL, TÜV and CQC certifications.
- 2022**
  - Applied IATF16949:2016 Automotive Industry Management System Certification.
  - KNSCHA Capacitors is applied to Xiaopeng, Geely and GAC Group new energy vehicle Charging stations.
- 2023**
  - Launched NTC thermistor production line.
  - Launched KNSCHA SMD plastic NTC thermistors with a packaging size of 2220,3220,3225,4032 replacing the D-5,D-7,D- 9 and D-11 series of radial type thermistors. It has obtained UL, TÜV and CQC certifications.
- 2012**
  - Launched Conductive Polymer Hybrid Aluminum Electrolytic Capacitors and High temperature 135°C Aluminum Electrolytic Capacitor,conformed to AECQ-200.
  - SHF series aluminum electrolytic capacitors passed the full performance test of the components used for the energy meter of the State Grid.
- 2009**
  - DONG GUAN KNSCHA ELECTRONICS CO.LTD. was founded and started to produce Snap-in, Screw Terminal Aluminum Electrolytic Capacitors with the Japanese Industrial Standard (JIS).
- 1996**
  - Established a joint-venture factory in Taichung, Taiwan, Mainly OEM Japanese Brand Radial Aluminum Electrolytic Capacitors.

# | KNSCHA Company Profile

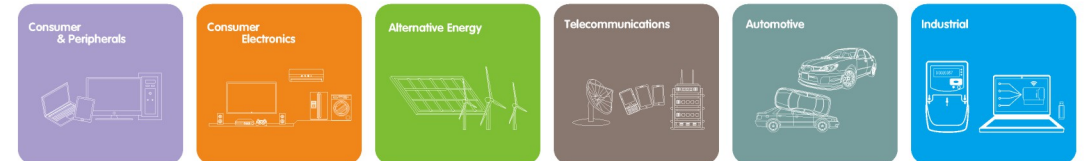
We're building capacitors to impact the future of technology.

## KNSCHA, Empowering The World

To Provide Excellent Services and Quality Electronic Components to Our Customer Worldwide.



- Founded in 1987, **KNSCHA ELECTRONICS CO.,LIMITED(KNSCHA)** is a high-tech enterprise engaged in advanced technology R&D, production and sales.
- KNSCHA is committed to becoming a world-class electronic component supplier and solution provider.
- Our product lines have been widely applied to communications, consumer, industrial,computer, lighting, power supply, security, smart grid, smart meters,medical equipment, automotive and renewable energy etc.



- Our experience R&D teams are capable to provide solutions for custom design and new product development that meet customer's application requirements.
- We own 4 large production bases with over 280 workers, 2 R&D centers, 3 sales centers ,mainly provide service to different markets in Asia, America and Europe.



- Advance Manufacturing and Testing Equipment
- KNSCHA state-of-art facilities is operate with high quality standard, using Lean manufacturing processes with a comprehensive ISO 9001/14001 and IATF 16949 management systems.

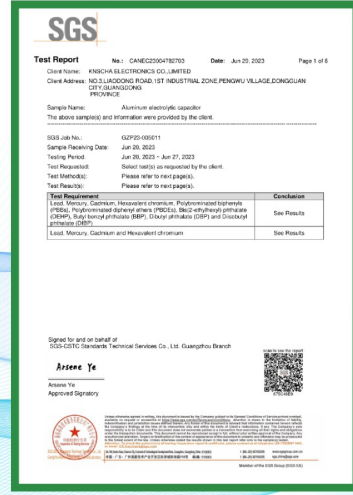
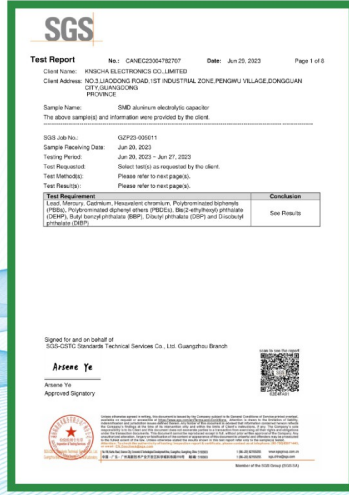
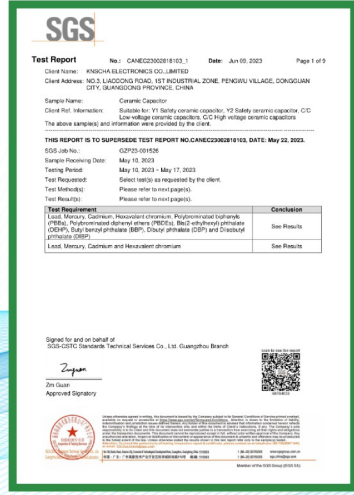
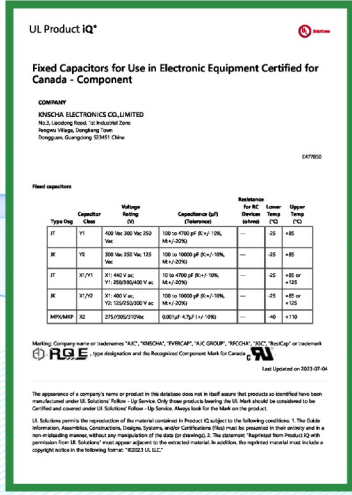
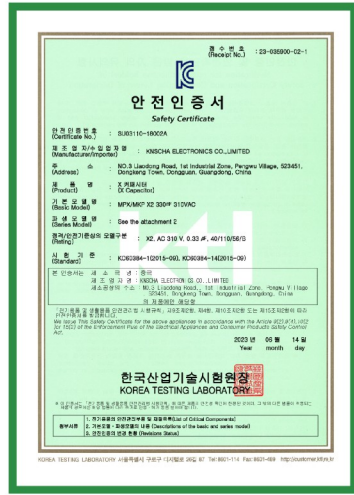
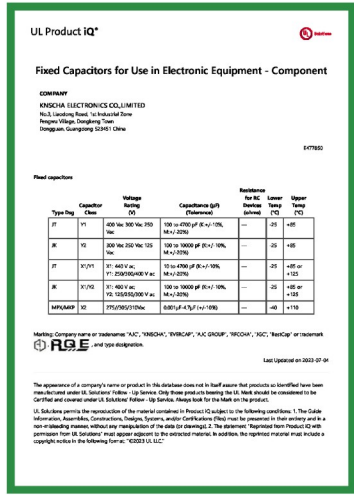
- Certification
- Product certification and quality management.



- Management Team
  - KNSCHA management team comprised of professionals and technical experts hailing from internationally renowned electronic component brands.
  - Our team excels in management, product research and development, manufacturing, and quality control.
- Customer Service and Support
  - KNSCHA has a team of customer services and technical support that work round-the-clock to support the needs and responsive to our customers.
- Wide Range of Products
  - KNSCHA is an innovative technology enterprise that focuses mainly on researching, manufacturing and selling aluminum electrolytic capacitors including SMD type, lead type, terminal type (snap-in type & screw type) etc.
  - KNSCHA is a professional manufacturer of Super Capacitors including Electric Double Layer Capacitors and Lithium Ion Capacitors etc.
  - KNSCHA offers a broad range of film capacitors including DC-Link Capacitor, AC-Filter Capacitor, Snubber/Pulse Capacitor, EMI Film Capacitor, General Purpose DC Film Capacitor etc.
  - We are specialized in production of Ceramic Capacitor including Safety Y1 & Y2 Standard Certified Type and High Voltage Type, Radial lead multilayer ceramic capacitors, Metal Oxide Varistors including Standard Type, High Surge Type, Combination Wave Type, TMOV and Thermistors etc.
  - We offer a broad range of Power Inductors and transformers etc.
  - KNSCHA is committed to the research and industrialization of silicon carbide power devices as its core, bench marking against international first tier brands, advanced packaging, and launching silicon carbide diodes and silicon carbide MOSFETs.



# KNSCHA Honor and Certificate





# | Our Factory



# | KNSCHA Exhibition History

Oct,2017 HK Electronica Asia



April,2019 EXPO Electronica fair in Moscow



April,2018 EXPO Electronica fair in Moscow



July,2019 FIEE Electronica fair in Brazil



Oct,2018 HK Electronica Asia



Sept,2019 India Munich Electronica



Nov,2018 Electronica in Munich



April,2023 EXPO Electronica fair in Moscow





# KNSCHA Aluminum Electrolytic Capacitors

## ◆ Radial Aluminum Electrolytic Capacitors

### ● 105°C Standard

#### SSK Series

Standard  
105°C 2000~3000Hrs



#### SHC Series

Standard, general  
105°C 2000~5000Hrs



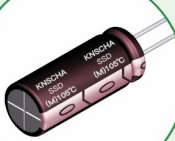
● Miniaturized For Charger

- Low Impedance
- High Ripple



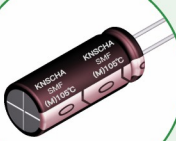
#### SSD Series

- Low ESR
  - High Ripple
- 105°C 2000~3000Hrs



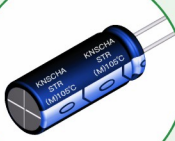
#### SMF Series

- Low ESR
  - Long Life
  - High Ripple
- 105°C 4000~6000Hrs



#### STR Series

- Low ESR
  - High Ripple
  - Miniaturized
- 105°C 4000~6000Hrs



#### KHG Series

- Low ESR
  - High Ripple
- 105°C 4000~10000Hrs



● For Audio Equipment and power supply

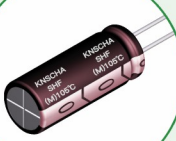
#### SHT Series

- Long Life
  - High Ripple
  - Ultra Low ESR
- 105°C 6000~8000Hrs



#### SHF Series

- Long Life
  - Low ESR
  - Miniaturized
  - High Ripple
  - Wide Temp-55°C
- 105°C 5000~10000Hrs



#### ST-200 Series

- High Reliability
  - High Ripple
  - Ultra Long Life
  - Low ESR
- 105°C 20000Hrs



#### SHG Series

- Long Life
  - Low ESR
  - High Ripple
  - Wide Temp-55°C
- 105°C 7000~10000Hrs
- High reliability, long life. Especially designed for LED driver, electronic ballast, electronic energy saving lamp



### ● High Temperature



#### SHX Series

- Low ESR
  - Long Life
  - High Ripple
- 125°C 5000~10000Hrs

● Suitable for automotive power supply devices



#### SX30 Series

- Low ESR
  - Long Life
  - High Ripple
- 130°C 2000~5000Hrs

● Suitable for automotive power supply devices



### ● Miniaturized



#### SPD Series

- Low ESR
  - High Ripple
- 105°C 1000~2000Hrs

● For GaN fast charger



#### MHT Series

- Low ESR
  - High Ripple
- 105°C 2000~4000Hrs

● For GaN fast charger



#### SSM Series

- Low ESR
  - Long Life
  - High Ripple
- 105°C 5000~6000Hrs



#### SPS Series

- Low ESR
  - Long Life
  - High Ripple
- 105°C 5000~10000Hrs

● For GaN fast charger



#### SHG Series

- Long Life
  - High Ripple
  - Ultra Low ESR
  - Wide Temp-55°C
- 105°C 7000~10000Hrs



### ● TiO2 Metallic Electrolytic Capacitors

#### SHW Series

- Long Life
  - Ultra Low ESR
  - Ultra-miniaturized
- 105°C 8000~12000Hrs

● Replaced Solid Capacitors of some application



#### SYJ Series

- Ultra-miniaturized
  - Long Life
  - Large Capacity
  - High Ripple
- 25°C~105°C 5000Hrs



### ● For Smart Meter

#### SHF Series

- Long Life
  - High Ripple
  - Ultra Low ESR
- 105°C 5000~10000Hrs

● For Low temperature starting





## ◆ Snap-in Aluminum Electrolytic Capacitors

### SLX Series

- Standard
- 85°C 2000Hrs



### STH Series

- Standard
- 105°C 2000Hrs



### ● Miniaturized

### SMO Series

- Long Life
- Ultra Miniaturized
- High Ripple Current
- 105°C 3000Hrs

● For miniaturized and compact server power supply and switching power supply



### SHA Series

- Long Life
- High Ripple Current
- 105°C 3000Hrs



### SMZ Series

- Long life
- High reliability
- High ripple current
- 105°C 5000Hrs



## ◆ Screw Terminal Aluminum Electrolytic Capacitors

### ● Miniaturized

### SA Series

- Standard
- 85°C 2000Hrs

● Suitable for Frequency converters, UPS and Electric welding machine



### SB Series

- Standard
- miniaturized
- 85°C 2000Hrs

● Suitable for Frequency converters and UPS



### SD Series

- Long Life
- High Reliability
- High Ripple Current
- 85°C 5000Hrs

● Suitable for Frequency converters, Uninterruptible power supplies, Solar and Wind power generator



### SC Series

- Long Life
- High Ripple Current
- 85°C 3000Hrs

● Suitable for Industrial machinery, Power converter, Communication sets and Test equipment



### SE Series

- Long Life
- High Reliability
- High Ripple Current
- 85°C 10000Hrs

● Suitable for Frequency converters, UPS, Professional power supplies, Solar and wind power generator



### SF Series

- Long Life
- High Reliability
- High Ripple Current
- 85°C 20000Hrs

● Suitable for Train, Mechanical equipment and Large control equipment



## ◆ Screw Terminal Aluminum Electrolytic Capacitors

### HA Series

- Standard
- 105°C 2000Hrs

● Suitable for Frequency converters, Professional power supplies and Electric welding machine



### HB Series

- Long Life
- High Ripple Current
- 105°C 3000Hrs

● Suitable for Frequency converters, Professional power supplies and Solar



### HD Series

- Long Life
- High Reliability
- High Ripple Current
- 105°C 10000Hrs

● Suitable for Frequency converters, Traction and Professional power supplies



### HC Series

- Long Life
- High Reliability
- High Ripple Current
- 105°C 5000Hrs

● Suitable for Frequency converters, Traction and Professional power supplies



## ◆ SMD Aluminum Electrolytic Capacitors

### KAS Series

- Standard
- 4.5mm Height
- 105°C 1000Hrs



### KAT Series

- Standard
- 105°C 2000Hrs



### RVT Series

- Standard
- 105°C 2000Hrs



### RST Series

- Standard
- 105°C 2000Hrs



### VT Series

- Standard
- 105°C 2000Hrs



### CK Series

- Standard
- 105°C 2000Hrs



### CS Series

- Standard
- 105°C 2000Hrs



### XT Series

- Standard
- 105°C 2000Hrs



### ● Low Impedance

### KAE Series

- Low Impedance
- 105°C 2000~3000Hrs



### KAZ Series

- Low Impedance
- 105°C 2000~3000Hrs
- Impedance 50 ~ 70% less than KAE series



### KAM Series

- Small size
- Ultra-low Impedance
- 105°C 2000~5000Hrs
- Impedance 20 ~ 30% less than KAZ series





## ◆ SMD Aluminum Electrolytic Capacitors

- Low Impedance
- Long Life

### KAL Series

- Low Impedance
  - High Ripple Current
- 105°C 3000~5000Hrs



### KAU Series

- Low Impedance
  - High Ripple Current
- 105°C 5000~7000Hrs



### KAY Series

- Low Impedance
  - High Ripple Current
- 105°C 7000~10000Hrs



- High voltage

### KAG Series

- High Ripple Current
- 105°C 2000~3000Hrs



### KAD Series

- High Ripple Current
- 105°C 5000~7000Hrs



### KAP Series

- High Ripple Current
- 105°C 7000~10000Hrs



- Long Life
- High Reliability

### KAF Series

- Long Life
- 105°C 3000~5000Hrs



### KAR Series

- Long Life
- 105°C 5000~7000Hrs



- High Temperature

### KAH Series

- Low Impedance
  - High Ripple Current
- 125°C 2000Hrs



- For Audio Equipment

### KAK Series

85°C 2000Hrs



### KAA Series

105°C 2000Hrs



- Suitable for a high grade of audio reproduction

### KAC Series

- Low Leakage Current
- 105°C 2000Hrs



### KAN Series

- Bi-polar
- 105°C 2000Hrs



| KNSCHA     | Nichicon                        | Rubycon    | Panasonic | Chemicon   | SAMWHA         | SAMYOUNG                 |
|------------|---------------------------------|------------|-----------|------------|----------------|--------------------------|
|            |                                 |            |           |            |                |                          |
|            |                                 |            |           |            |                |                          |
| *          | *                               | *          | *         | MVA        | SC             | MVG                      |
| KAT Series | UWT<br>UWP<br>UUP<br>UUT<br>UCQ | JGV<br>SKV | HB<br>HA  | MVE<br>MVJ | JC<br>JH<br>RC | MVK<br>BDS<br>BDR<br>BDA |
| KAE Series | UWF<br>UWG                      | *          | FC        | MVY<br>MLA | ZC             | *                        |
| KAZ Series | UCD<br>UUD<br>UWD               | TZV        | FK<br>FKS | MZA        | CD<br>CK       | BXA<br>BXE<br>BXJ        |
| KAM Series | UCL<br>UCM<br>UCV               | TKV<br>TPV | FT<br>FP  | MZJ<br>MZR | CZ             | BXF<br>BXQ               |
| KAL Series | *                               | TLV        | *         | *          | *              | *                        |
| KAU Series | UCW                             | *          | *         | *          | *              | *                        |
| *          | *                               | *          | *         | *          | JM             | *                        |
| KAF Series | UUA<br>UUL                      | SJV        | HC        | MVL        | CA<br>CB       | BLA                      |
| KAR Series | UCB                             | *          | *         | MLK<br>MLE | *              | *                        |
| KAH Series | *                               | TXV        | TG        | MVH<br>MHB | UC<br>UR       | CLZ<br>CLX<br>CLS        |
| KAN Series | *                               | *          | *         | *          | CN<br>NC       | BP                       |
| KAC Series | *                               | *          | *         | *          | *              | *                        |
| KAY Series | *                               | *          | *         | MZE<br>MZF | JL             | BLH                      |
| KAD Series | *                               | *          | *         | *          | JM             | BLA                      |
| KAG Series | UUX<br>ULR                      | *          | *         | MVE        | *              | *                        |
| KAP Series | ULV                             | *          | *         | *          | *              | *                        |
| KAK Series | *                               | *          | *         | ARI        | *              | *                        |
| KAA Series | *                               | *          | *         | MAK        | *              | *                        |



| KNSCHA     | Fujicon  | Lelon      | Teapo    | Jiamicon             | CAPXON   | Su'scon          |
|------------|----------|------------|----------|----------------------|----------|------------------|
|            |          |            |          |                      |          |                  |
| *          | CS       | VE         | VS       | CS                   | LV       | CS               |
| KAT Series | CK       | VES<br>VEJ | VT<br>VH | CT<br>CH             | EV<br>HV | CH<br>CK         |
| KAE Series | LZ       | VEZ<br>VEH | VA<br>VZ | CL                   | ZV       | *                |
| KAZ Series | KZ<br>FZ | VZH<br>VZL | VB<br>VD | CF<br>CK<br>CZ<br>CD | DV       | CD               |
| KAM Series | *        | VZS<br>VZT | VP       | *                    | *        | *                |
| KAL Series | *        | VZH        | *        | CJ                   | RV       | CDL              |
| KAU Series | *        | *          | *        | CJ                   | *        | *                |
| *          | EL       | *          | *        | *                    | JV       | *                |
| KAF Series | KL       | VEU        | VL       | CU                   | MV       | CKL              |
| KAR Series | *        | *          | *        | *                    | *        | *                |
| KAH Series | KH       | VUA        | VK<br>VM | CB                   | TV       | CG<br>CGS<br>CGV |
| KAN Series | CN       | VEB<br>VGB | VN       | CN<br>CP             | NV       | CN               |
| KAC Series | SC       | VEC        | *        | CA<br>CE             | KV       | *                |
| KAY Series | *        | VZR        | *        | *                    | CV       | *                |
| KAD Series | *        | *          | VJ       | *                    | *        | *                |
| KAG Series | *        | *          | *        | *                    | *        | CL               |
| KAP Series | *        | *          | *        | *                    | *        | *                |
| KAK Series | *        | *          | *        | *                    | *        | *                |
| KAA Series | *        | *          | *        | *                    | *        | *                |

## ◆ Conductive polymer aluminum solid capacitors

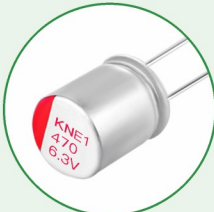


### ● Radial Lead Type

#### KNE1 Series

- High ripple
- Ultra Low ESR

-55°C~105°C 2000Hrs



#### KNH4 Series

- Low ESR
- High ripple
- High voltage
- High temp.

-55°C~125°C 2000Hrs



#### KNE2 Series

- Low ESR
- High ripple

-55°C~105°C 2000Hrs



#### KNH2 Series

- Low ESR
- High ripple
- High voltage

-55°C~105°C 2000Hrs



#### KNE4 Series

- Low ESR
- High temp.
- High ripple current

-55°C~125°C 2000Hrs



#### KNH5 Series

- Low ESR
- Long life
- High ripple
- High voltage

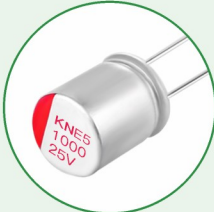
-55°C~105°C 5000Hrs



#### KNE5 Series

- Low ESR
- Long life
- High ripple

-55°C~105°C 5000Hrs



### ● Chip Type

#### KNM2 Series

- Low ESR
- High ripple
- Miniaturized

-55°C~105°C 2000Hrs



### ● Multi-layer Polymer Solid Capacitors

#### MP19A Series

- Low ESR
  - High ripple current
- 105°C 2000Hrs



## ◆ Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

### ● Radial Lead Type

#### HPB Series

- Low ESR
- High Reliability

105°C 5000Hrs



#### HPR Series

- Low ESR
- High Reliability

125°C 4000Hrs



### ● Chip Type

#### HMB Series

- Low ESR
- High Reliability

105°C 5000Hrs



#### HMR Series

- Low ESR
- High Reliability

125°C 4000Hrs





## ◆ Electric Double Layer Capacitors

## ◆ Super Capacitors

### KSP Series

- High Energy
- High Power Type
- 2.7V.DC



### Button Series

- Long Life
- Low Leakage Current
- 5.5V.DC



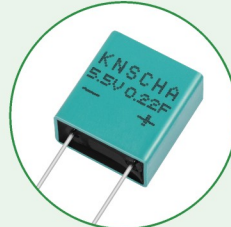
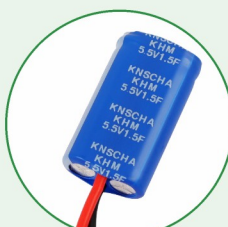
### KSD Series

- High Energy
- High Voltage
- High Power Type
- 3.0V.DC



### KHM Series

- Long Life
- Low Leakage Current
- 5.5V.DC 6.0V.DC
- 7.5V.DC 8.1V.DC
- 9.0V.DC



## ◆ Lithium Ion Capacitors, LIC

### LIC and FCB Series

- High Energy
- High Voltage
- Low Self-discharge
- 3.8V.DC~4.2V.DC

- Replaced super capacitors and lithium batteries in some application scenarios



## Plastic Film Capacitors

### ● Metallized Polypropylene Film Capacitors

#### MPP Series

- Dipped Type



#### MPB Series

- Box Type



#### MPP-A Series

- For Capacitive Divider



#### MPB-A Series

- For Capacitive Divider



#### MMKP82 Series

- Box-type Metallized
- Double Sided High Voltage
- Polypropylene Film Capacitor



### ● Axial Metallized Polypropylene Film Capacitors

#### MPT Series

- Cycloidal



#### MPA Series

- Flat Oval Shape



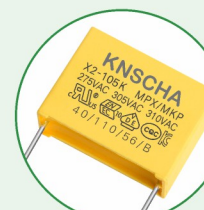
Our audio capacitors are to be used for high end audio applications (loudspeakers, amplifiers, coupling, power supply, etc)

### ● Class X2 Film Capacitor

### ● X2 Metallized Polypropylene Film Capacitor

#### X2 Series

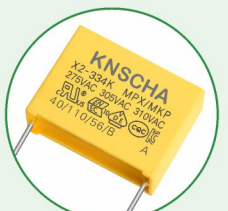
- EMI



#### X2-A Series

- For Capacitive Divider

● Good properties in damp environment



#### X2-THB Series

- Temperature: 85°C ± 2°C;
- Humidity: 85% ± 2%Loading
- Voltage: 240Vac (50Hz/60Hz)
- Duration: 2000 Hours

● For capacitive divider power supply. Such as power meter, LED driver, and other sever ambient condition applications.









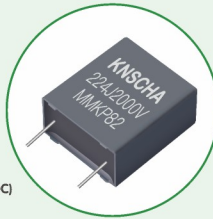
## ◆ Resonance Capacitors

### ● Radial Leads

#### MMKP82 Series

- SCR commutating circuit
- High frequency, high voltage
- Snubber, pulse, resonant circuits

● THB Grade IIIB (85°C, 85% RH, 1000h at UNDC)



#### KRT Series

- Low ESR
- High frequency
- High pulse Current



### ● Ceramic Capacitors

#### HT Series

- HIGH VOLTAGE



#### KT Series

- SMD Y1



#### JK Series

- X1 / Y2(300VAC) Safety Standard Recognized Capacitors



#### JT Series

- X1 / Y1(400VAC) Safety Standard Recognized Capacitors



### ● Zinc Oxide Varistors

#### Standard Type Series

- 5D/7D/10D/14D/20D



#### High Surge Type Series

- 5D/7D/10D/14D/20D



#### NTC Series

- Power NTC Thermistor



#### TMOV Series

- 14D/20D



#### SMD Series

- Plastic packaging
- 2220/3220/3225/4032

● Replaced 7D and 10D Series Lead type Metal Oxide Varistor  
● CQC UL TÜV



#### SMD NTC Series

- Plastic Thermistor NTC
- 2220/3220/3225/4032

● Replaced D-5, D-7, D-9 and D-11 Series Lead type NTC Thermistor  
● CQC UL TÜV



## ◆ Tantalum Capacitors

### ● Radial Lead Type

#### CA42 Series

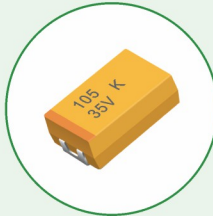
- Economy and high performance are combined



### ● Chip Type

#### CA45 Series

- General purpose SMT chip tantalum series



## ◆ Multilayer ceramic Capacitors

#### CT4 Series

- Radial leaded MLCC



#### CT42 Series

- Radial leaded MLCC



## ◆ Power Inductor

## ◆ High Current Power Inductor

#### KSM Series

- High saturation current
- Stable frequency characteristic
- Third mounting pad for greater stability and board adhe



#### KSF Series

- Magnetic shielding structure,
- Low core loss
- Third mounting pad for greater stability and board adhe



## ◆ Power Inductors For Digital Amplifier

## ◆ Molding Power Choke

#### KPE Series

- Vertical 2 in 1 structure
- High current, low core loss



#### KPI Series

- Excellent DC bias capability
- Low core loss at high frequency

● AEC-Q200 qualified



## ◆ Drum Core Inductor

#### KSP Series

- Low DC resistance
- Unshielded, with high inductance



#### KPRH Series

- Shield structure
- Suitable for high density mounting



#### SPQ Series

- Shield structure
- Suitable for high density mounting



#### KNR Series

- Shield structure
- Suitable for high density mounting



#### KPM Series

- Shield structure
- Low profile design



#### KKS Series

- Unshielded, through-hole design
- Customized design is available





◆ Wire Wound Common Mode Choke

KTP Series

- Compact and lightweight for high density surface
- Closed magnetic circuit design



KTC Series

- Closed magnetic circuit core for minimum size
- High impedance characteristics



KSQ Series

- Square closed magnetic circuit core
- Flat wire automatic winding



KCB Series

- Broadband filtering
- Improved isolation



◆ Rod Inductor

KAR Series

- High saturation current
- Low DC resistance



KKR Series

- High saturation current
- Low DC resistance



KKL Series

- High saturation current
- Low DC resistance



● AEC-Q200 qualified

◆ SHINDENGEN Solenoids

SHINDENGEN  
Rotary DC Solenoids



SHINDENGEN  
Tubular DC Solenoids

SHINDENGEN  
MADE IN JAPAN



SHINDENGEN  
Small Push-Pull DC Solenoids



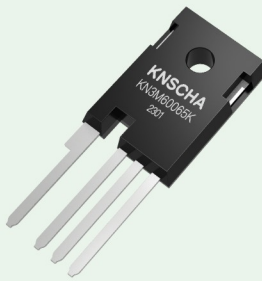
KNSCHA HSBC HongKong Bank Information

- ▶ Bank Name:HSBC (Hong Kong)
- ▶ Beneficiary Name: KNSCHA ELECTRONICS CO.,LIMITED
- ▶ Account number:817 826829 838
- ▶ Swift code: HSBCHKHCHKH
- ▶ Address:UNIT 04, 7/F,BRIGHT WAY TOWER,NO.33 MONG KOK ROAD,KOWLOON,HK.

◆ Silicon Carbide (SiC) MOSFETs

These products are designed to be fast and rugged and include system benefits from high efficiency to reduced system size and cost.

- Advantages: Produced according to national military industry standard production line standards, with stable process and reliable quality.
- Features: High frequency,high power,high efficiency,low conductive resistance.
- Applications: Solar inverters, high voltage DC/DC converters, motor drivers, UPS power supplies, switching power supplies, charging piles, etc.



STANDARD SIZE

| Silicon Carbide (SiC) MOSFETs |                 |             |                                          |           |
|-------------------------------|-----------------|-------------|------------------------------------------|-----------|
| Part Number                   | V <sub>DS</sub> | IDC(TC=25℃) | R <sub>DS</sub> (T <sub>J</sub> =25℃)Typ | Package   |
| KN3M30065K                    | 650V            | 92A         | 30mΩ                                     | TO-247-4  |
| KN3M60065K                    | 650V            | 51A         | 60mΩ                                     | TO-247-4  |
| KN3M14120K                    | 1200V           | 152A        | 14mΩ                                     | TO-247-4  |
| KN3M18120K                    | 1200V           | 105A        | 18mΩ                                     | TO-247-4  |
| KN3M35120K                    | 1200V           | 69A         | 35mΩ                                     | TO-247-4  |
| KN3M40120K                    | 1200V           | 76A         | 40mΩ                                     | TO-247-4  |
| KN3M50120K                    | 1200V           | 58A         | 50mΩ                                     | TO-247-4  |
| KN3M70120J                    | 1200V           | 36A         | 68mΩ                                     | TO-263-7  |
| KN3M80120K                    | 1200V           | 38A         | 80mΩ (75mΩ)                              | TO-247-4  |
| KN3M80120J                    | 1200V           | 32A         | 80mΩ (75mΩ)                              | TO-263-7  |
| KN3M160120E                   | 1200V           | 17A         | 160mΩ                                    | TO-263-2L |
| KN3M160120D                   | 1200V           | 21A         | 160mΩ                                    | TO-247-3  |
| KN3M160120K                   | 1200V           | 19A         | 160mΩ                                    | TO-247-4  |
| KN3M45170D                    | 1700V           | 72A         | 45mΩ                                     | TO-247-3  |
| KN3M45170K                    | 1700V           | 72A         | 45mΩ                                     | TO-247-4  |
| KN3M65017K                    | 1700V           | 7A          | 650mΩ                                    | TO-247-4  |
| KN3M10017K                    | 1700V           | 5A          | 1Ω                                       | TO-247-4  |
| KN3M50330K                    | 3300V           | 68A         | 50mΩ                                     | TO-247-4  |

◆ Silicon Carbide (SiC) Diodes

These products use a completely new technology that provides superior switching performance and higher reliability to silicon.

- Advantages: Produced according to national military industry standard production line standards, with stable process and reliable quality.
- Features: Very low reverse recovery current and high surge current resistance; High power, high efficiency, high frequency, high temperature resistance.
- Applications: PFC circuits, DC/AC inverters for solar and wind power generation, UPS power supply and motor drives, etc.



STANDARD SIZE

| Silicon Carbide(sic)Diodes |                 |             |                                |
|----------------------------|-----------------|-------------|--------------------------------|
| Part Number                | V <sub>DC</sub> | IDC(TC=25℃) | Package                        |
| KN3D06065F                 | 650V            | 6A          | TO-252-2L                      |
| KN3D10065F                 | 650V            | 10A         | TO-252-2L                      |
| KN3D10065E                 | 650V            | 10A         | TO-263-2L                      |
| KN3D06065N                 | 650V            | 6A          | DFN 5 × 6                      |
| KN3D06065G                 | 650V            | 6A          | DFN 8 × 8                      |
| KN3D10065G                 | 650V            | 10A         | DFN 8 × 8                      |
| KN3D06065A                 | 650V            | 6A          | TO-220-2                       |
| KN3D06065AF                | 650V            | 6A          | TO-220F                        |
| KN3D08065A                 | 650V            | 8A          | TO-220-2                       |
| KN3D10065A                 | 650V            | 10A         | TO-220-2                       |
| KN3D10065AI                | 650V            | 10A         | TO-220-2 (Internal insulation) |
| KN3D10065H                 | 650V            | 10A         | TO-247-2                       |
| KN3D15065A                 | 650V            | 15A         | TO-220-2                       |
| KN3D20065A                 | 650V            | 20A         | TO-220-2                       |
| KN3D20065H                 | 650V            | 20A         | TO-247-2                       |
| KN3D20065D                 | 650V            | 20A         | TO-247-3                       |
| KN3D30065H                 | 650V            | 30A         | TO-247-2                       |
| KN3D30065D                 | 650V            | 30A         | TO-247-3                       |
| KN3D40065H                 | 650V            | 40A         | TO-247-2                       |
| KN3D42090H                 | 900V            | 42A         | TO-247-2                       |
| KN3D02120F                 | 1200V           | 2A          | TO-252-2L                      |
| KN3D05120A                 | 1200V           | 5A          | TO-220-2                       |
| KN3D08120A                 | 1200V           | 8A          | TO-220-2                       |
| KN3D10120A                 | 1200V           | 10A         | TO-220-2                       |
| KN3D20120A                 | 1200V           | 20A         | TO-220-2                       |
| KN3D20120H                 | 1200V           | 20A         | TO-247-2                       |
| KN3D20120D                 | 1200V           | 20A         | TO-247-3                       |
| KN3D30120H                 | 1200V           | 30A         | TO-247-2                       |
| KN3D30120D                 | 1200V           | 30A         | TO-247-3                       |
| KN3D40120H                 | 1200V           | 40A         | TO-247-2                       |
| KN3D50120H                 | 1200V           | 50A         | TO-247-2                       |
| KN3D10170H                 | 1700V           | 10A         | TO-247-2                       |
| KN3D20170H                 | 1700V           | 25A/20A     | TO-247-2                       |