

华朔半导体有限公司

HUASHUO SEMICONDUCTOR CORP

Company Introduction



公司简介 (Company Profile)

Huashuo Semiconductor was founded in 2016, and its team members are primarily from leading international power device manufacturers, each with over 15 years of power device experience. Huashuo focuses on the development and sales of power device MOSFET products. The company mainly provides differentiated products to the market and its customers, particularly offering a comprehensive series of P-MOS products, with diverse packaging solutions ranging from -12V to -400V Trench/SGT series. The Huashuo semiconductor has been recognized as a National High-Tech Enterprise, a Specialized, Refined, Distinctive, and Innovative SME, a Technology-based SME, and an Innovative SME.

The company has served over 2,000 long-term clients, covering a vast range of application markets. Its commitment to quality and delivery reliability has earned high recognition from customers, enabling the establishment of long-term, mutually beneficial, and trust-based supply partnerships. Huashuo Semiconductor's portfolio of medium-voltage and low-voltage MOSFETs now exceeds 700 product types. Nevertheless, the company continues to develop new products each year, guided by a commitment to superior quality and advanced technology, in order to provide customers with even better service.

10 +

成立於2016年
(Founded in 2016)

700 +

MOSFETs 产品
(MOSFETs Products)

2000 +

服务的企业用户
(Customer Number)



MOSFET N Channel Series

N
M
O
S
F
E
T

| VDS(V) | VGS(V) | ID(A) |
|----------|--------------------|-----------|
| 12~30V | ±8/±10 /±12/±20 | 0.5 ~ 390 |
| 40~80V | ±20 | 0.12~390 |
| 100~250V | ±20/±30 | 1~455 |

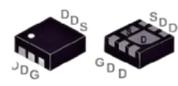
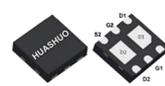
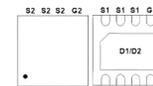
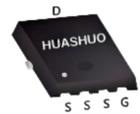
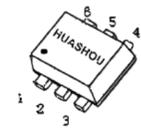
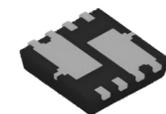
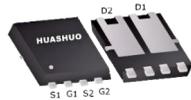
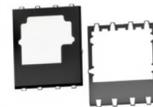
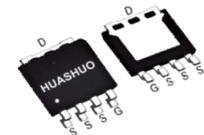
| Package Type | | | | | |
|-----------------|-----------------|------------------|-----------------|---------------|----------------|
| DFN1006 | DFN2*2-6L | DFN2*2-6L(D) | DFN2*3 | DFN3*3 | DFN3.3*3.3 |
| DFN8*8 | PDFN3.3*3.3 | SOT-223 | SOT-23L | SOT-23S | SOT-323 |
| SOT-363 | SOT-523 | SOT-563 | SOT-723 | SOT-89 | SOT23-6 |
| TSSOP-8 | SOP-8 | PRPAK3*3 | PRPAK3*3 EP | PRPAK3*3A | PRPAK5*6 |
| PRPAK5*6(D) | PRPAK5*6(D) | PRPAK5*6(D) | LFPAK5*6 | TO-251 | TO-252 |
| TO252-4L | TO-263 | TO-220 | TO-247 | TOLL | TOLT |
| | | | | | |

MOSFET P Channel Series

P
M
O
S
F
E
T

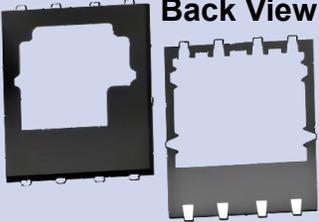
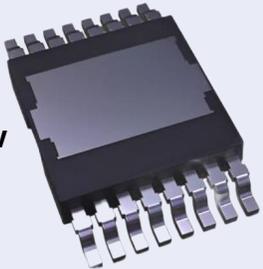
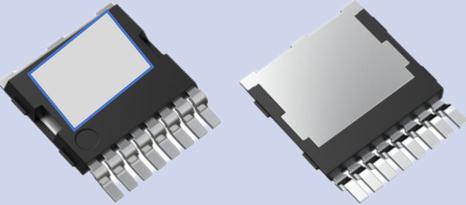
| VDS(V) | VGS(V) | ID(A) | Package Type | | | | | | | |
|-----------------|------------------------|-----------|--------------|----------|---------|-----------|--------------|-------------|----------|-------------|
| | | | SOT-23S | SOT23-6 | SOT-223 | SOT-323 | SOT-363 | SOT-523 | SOT-23L | SOT-723 |
| -12~ -30V | ±8/±10/±12 /±20/±25 | 0.5 ~ 220 | SOT-89 | SOP-8 | DFN1006 | DFN2*2-6L | DFN2*2-6L(D) | DFN3.3*3.3 | PRPAK3*3 | PRPAK3*3 EP |
| | | | PRPAK5*6 | TO-252 | TO-263 | TO-220 | - | - | - | - |
| | | | SOT-23S | SOT-23L | SOT23-6 | SOT-223 | SOT-363 | SOT-89 | SOP8 | PRPAK3*3 |
| -40V~ -80V | ±20 | 0.13~180 | DFN3.3*3.3 | PRPAK5*6 | TO-252 | TO-263 | TO-220 | PRPAK5*6(D) | - | - |
| | | | SOT-23L | SOT-223 | SOT-89 | SOP8 | PRPAK3*3 | PRPAK5*6 | TO-252 | TO-263 |
| | | | TO-220 | TOLL | - | - | - | - | - | - |
| -100V~ -250V | ±20 | 1.3~80 | - | - | - | - | - | - | - | - |
| | | | - | - | - | - | - | - | - | - |
| | | | - | - | - | - | - | - | - | - |

MOSFETs Package Type Series

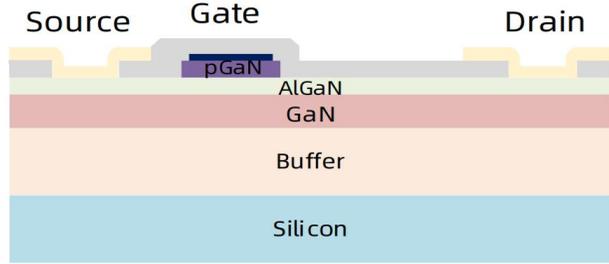
| | | | | | |
|---|---|---|---|---|--|
| DFN1006  | DFN2*2-6L  | DFN2*2-6L(D)  | DFN2*3  | DFN3*3  | DFN3.3*3.3  |
| DFN8*8  | PDFN3.3*3.3  | SOT-223  | SOT-23L  | SOT-23S  | SOT-323  |
| SOT-363  | SOT-523  | SOT-563  | SOT-723  | SOT-89  | SOT23-6  |
| TSSOP-8  | SOP-8  | PRPAK3*3  | PRPAK3*3 EP  | PRPAK3*3A  | PRPAK5*6  |
| PRPAK5*6(D)  | PRPAK5*6(D)  | PRPAK5*6(D)  | LFPAK5*6  | TO-251  | TO-252  |
| TO252-4L  | TO-263  | TO-220  | TO-247  | TOLL  | TOLT  |



MOSFET Package Roadmap(2025~2026)

| BVdss | Package Type | Package View |
|-----------------|--|--|
| 30V~100V | PRPAK5X6, Dual Side Cooling | <p>Front View Back View</p>  |
| 80V~250V | TOLT, Dual Side Cooling 9.9x15x2.3 mm | <p>Front View</p>  |
| 80V~250V | TOLG Dual Side Cooling 10x11x2.3 mm | <p>Front View Back View</p>  |

GaN LV & HV MOSFETs E-Mode Roadmap(2025~2027)



Key Attributes of GaN MOSFETs

- Highest electron mobility
- Best channel conductivity full temperature range
- High margin against noise

E-Mode GaN HEMT MOSFETs Status - LV

| P/N | VDS, max (V) | Technology | Package Type | Configuration | ID, max (A) | ID pulse,max (A) | VGS(th), Typ (V) | RDs(on) Typ (mΩ) | RDs(on) max (mΩ) | QG (nC) | Qoss (nC) | Status |
|-----------------|--------------|------------|--------------|---------------|-------------|------------------|------------------|------------------|------------------|---------|-----------|-------------|
| HSGN040N005WP | 40 | GEN 1 | WLCSP | Single | 20 | 100 | 1.4 | 5 | 6 | 16 | 12 | Process |
| HSGN100N002R4WP | 100 | GEN 1 | WLCSP | Single | 76 | 700 | 1.9 | 2.4 | 3.3 | 2.6 | 43 | Development |
| HSGN100N001R5BA | 100 | GEN 1 | DFN5x6 | Single | 302 | 980 | 1.1 | 1.1 | 1.5 | 25 | 102 | Development |
| HSGN100N001R8DA | 100 | GEN 1 | QFN4X6 | Single | 100 | 320 | 1.1 | 1.4 | 1.8 | 22 | 125 | Development |
| HSGN100N002R5BA | 100 | GEN 1 | DFN5x6 | Single | 174 | 540 | 1.2 | 1.9 | 2.5 | 11 | 56 | Development |
| HSGN100N002R8FA | 100 | GEN 1 | DFN3x5 | Single | 80 | 320 | 1.1 | 2.2 | 2.8 | 14 | 85 | Development |
| HSGN100N003R5BA | 100 | GEN 1 | DFN5x6 | Single | 118 | 390 | 1.2 | 2.9 | 3.5 | 7.7 | 41 | Development |
| HSGN100N0035BA | 100 | GEN 1 | DFN5x6 | Single | 93 | 300 | 1.2 | 3.8 | 5 | 5.7 | 29.2 | Development |
| HSGN100N0035BA | 100 | GEN 1 | DFN3x3 | Single | 56 | 175 | 1.2 | 5.8 | 7.8 | 3.3 | 17.3 | Development |
| HSGN100N008WP | 100 | GEN 1 | WLCSP | Single | 8.2 | 100 | 1.4 | 8 | 11 | 3.5 | 15 | Sample |
| HSGN150N0035BA | 150 | GEN 1 | QFN4X6 | Single | 100 | 260 | 1.2 | 3.2 | 3.9 | 20 | 130 | Development |
| HSGN150N0035BA | 150 | GEN 1 | QFN4X6 | Single | 60 | 160 | 1.2 | 5.6 | 7 | 7.6 | 47 | Development |

E-Mode GaN HEMT MOSFETs Status - HV

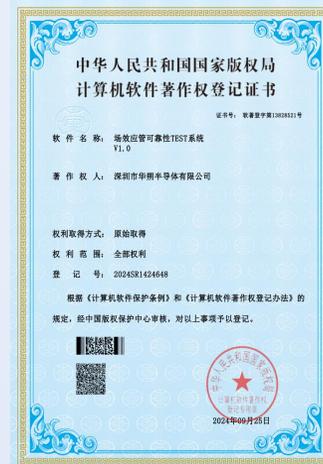
| P/N | VDS, max (V) | Technology | Package Type | Configuration | ID, max (A) | ID pulse,max (A) | VGS(th), Typ (V) | RDs(on) Typ (mΩ) | RDs(on) max (mΩ) | QG (nC) | Qoss (nC) | Status |
|---------------|--------------|------------|--------------|---------------|-------------|------------------|------------------|------------------|------------------|---------|-----------|---------|
| HSGN700N900UA | 700 | GEN 1 | TO-252 | Single | 1.5 | 3 | 1.6 | 900 | 1070 | 0.4 | 4.4 | Process |
| HSGN700N460A | 700 | GEN 1 | DFN5x6 | Single | 3.3 | 6 | 1.6 | 465 | 550 | 0.7 | 6.8 | Process |
| HSGN700N385A | 700 | GEN 1 | DFN5x6 | Single | 4 | 8 | 1.6 | 385 | 460 | 1.4 | 8.9 | Process |
| HSGN700N350BA | 700 | GEN 1 | DFN5x6 | Single | 6 | 10 | 1.6 | 270 | 350 | 1.5 | 13 | Sample |
| HSGN700N240KA | 700 | GEN 1 | DFN8x8 | Single | 10 | 18 | 1.6 | 200 | 240 | 2 | 17 | Sample |
| HSGN700N140A | 700 | GEN 1 | DFN8x8 | Single | 11.5 | 20.5 | 1.6 | 140 | 190 | 2.8 | 24.5 | Process |
| HSGN700N095A | 700 | GEN 1 | DFN8x8 | Single | 16 | 34 | 1.6 | 100 | 140 | 3.5 | 19 | Sample |

Key Technological and Patent Portfolio

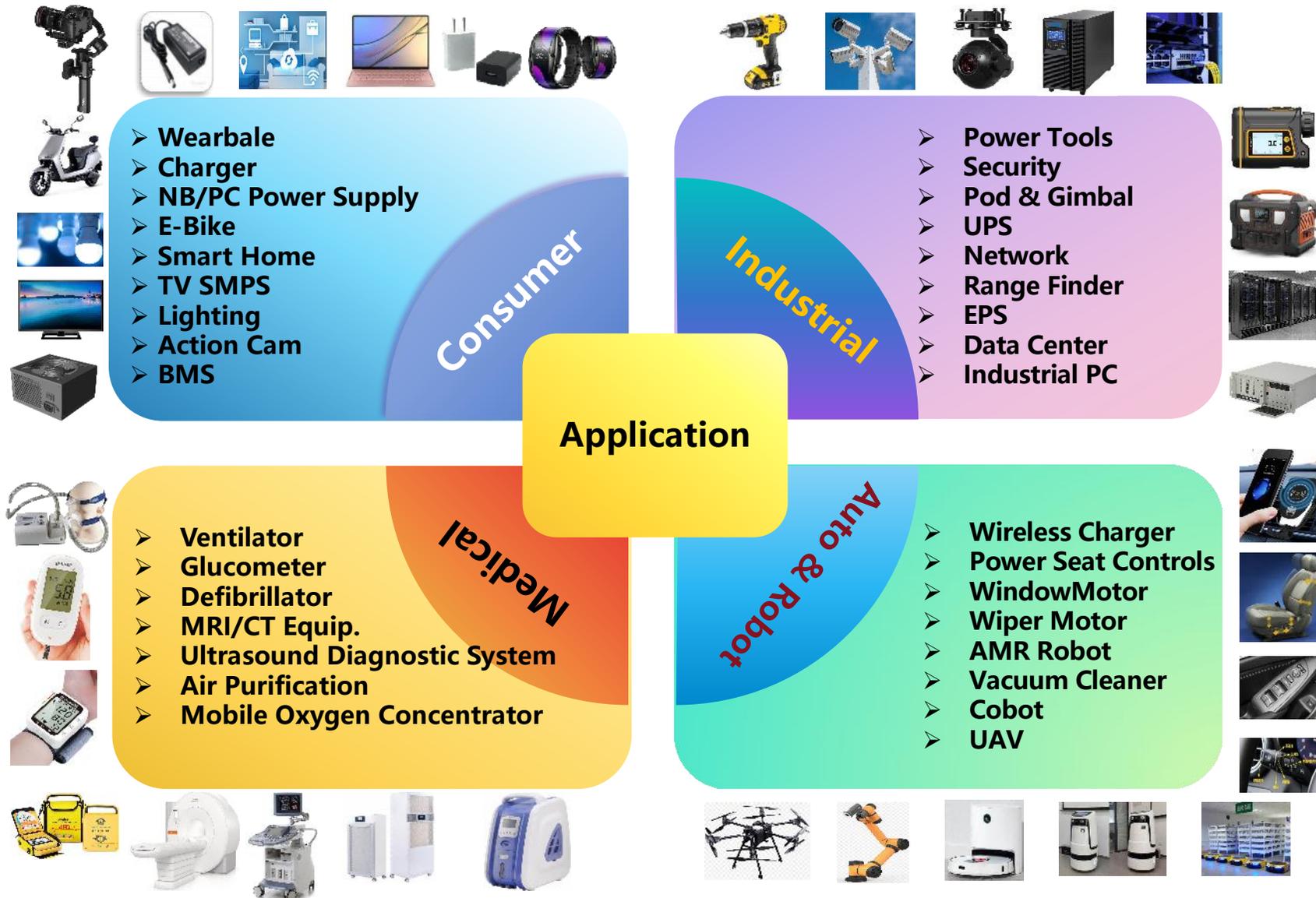
Patent Portfolio - Trench/SGT/GaN MOSFETs



| Patent Pending No. | Patent Description |
|--------------------|---|
| 202421589204.9 | Avalanche-Rugged N-Channel Power MOSFET |
| 202422186798.5 | MOSFETs optimized for thermal performance |
| 202421240882.4 | An ESD-protected MOSFET featuring a Gate-Grounded NMOS (GGNMOS) structure |
| 202421351347.6 | A surface-mount package structure with an exposed cooling pad |
| 202420901722.3 | Low-Voltage High-Current N-Channel Power MOSFET Module |
| 202420972514.2 | Surge-Rugged Low-Voltage MOSFET |
| 202421159399.3 | A new structure Clip-Bonded package MOSFETs |
| 202421075135.X | A Power MOSFET with Integrated Thermal Shutdown Protection |
| 202411832918.2 | A next-generation MOSFET featuring a novel double-trench architecture |



MOSFETs Application Area



Quality Management





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Xiamen, China R&D Center

📍 厦门火炬海沧高新区研发中心

(Xiamen Torch High-tech Industrial Development Zone
Hai Cang Park R&D Center)

Taiwan, R&D Center

📍 台湾新竹科学园区销售&研发中心

(Taiwan Hsinchu Science Park Sales & R&D Center)