



DEMA Electronic AG



COMPANY INTRODUCTION & PROFILE

2023

01 Company at A Glance

2000
Foundation



Factory Space
370,000 m²



\$ 700 + M/

2022 Annual Sales Revenue


5000_{+staff}



Capacity 41B pieces /year



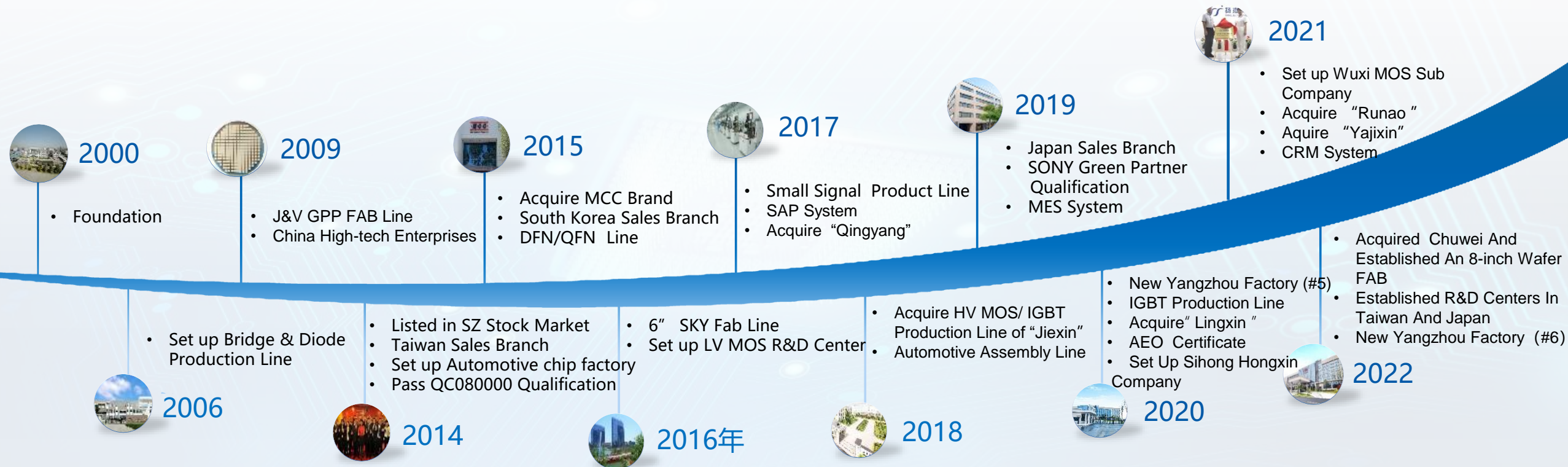
2021 China Semiconductor Power Devices

TOP 3 Brand

Products



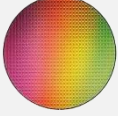



MOSFET、IGBT/Power Module、
SiC、Rectifier、Protection Device、
Small Signal、Wafer、Silicon Wafer、
EPI Wafer

20⁺ MORE THAN 20 YEARS OF HISTORY AND BREAKTHROUGHS



03 Core Strength

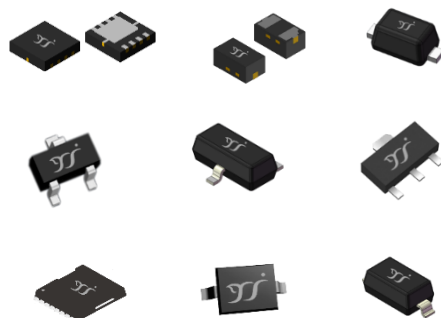
Unique in China : From Raw Material to Assembly Line in House with IDM Ability
Sustainable Cost Optimization under Quality Assurance and Fast Delivery

Industry Chain	Upstream		Mid-stream		Downstream	
	Raw Material	Wafer Design	Wafer Fab	Assembly and Test	Sales Channel	End Customer
YJ Industrial Chain Span						
	Silicon Ingot Silicon Wafer EPI Wafer	5"GPP 6"SKY 6"FRED 8"IGBT 8"MOS	5"GPP 6"SKY 6"FRED 8"IGBT 8"MOS	Bridges Rectifier Diodes Small Signal Mosfet IGBT SiC	Distribution Direct Sales	Power: Home Appliance: Telecommunication: Industry: Security: Automotive
YJ Strength	Raw Material Insurance	Design Capability Customized Service	Wafer Capacity Support Safety and Fast Delivery	Total Solution Automatic Assembly Quality Assurance	Fast Response Local Service Worldwide Logistics	Top Customer Working Experience Strong Foothold in End Markets

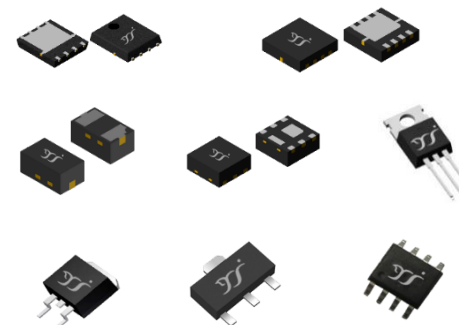
Full Range of Semiconductor Discrete Product Solutions

We have a wide range of product lines including Silicon Ingot、Silicon Wafer、EPI Wafer、discrete semiconductor chips,mosfet,IGBT&power module, SiC,rectifier,protection device and small signal etc. This enables us to offer total product solution to our customers.

Small Signal



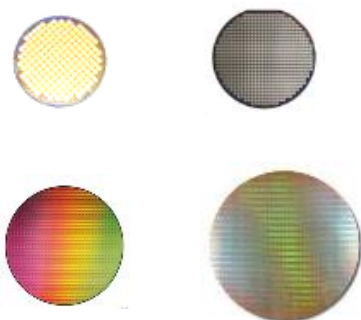
MOSFET



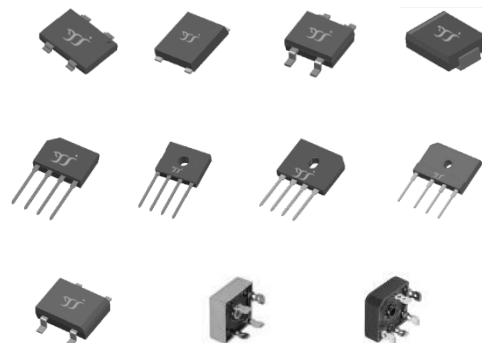
IGBT/Power Modules



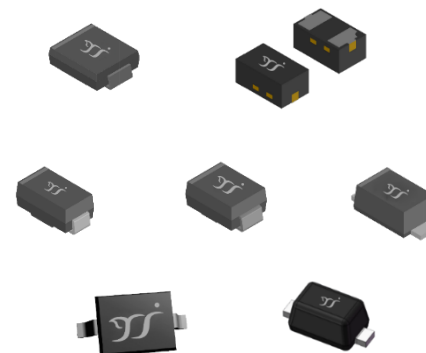
Chip



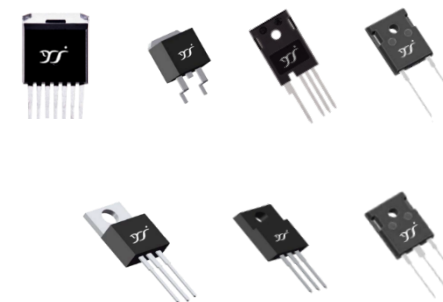
Rectifiers



Protection Device



SiC



Comprehensive Quality System Assurance Capability

◆ Reliability Test Capability

NO.	Test Item	Conditions	Time
1	TC	150°C+15/-0°C/15min, -55°C+0/-10°C/15min.	1000 Cycles
2	Operation Life	$\Delta T_j \geq 100^\circ\text{C}$ No/Off 2min	1000Hrs
3	Autoclave	121°C±5°C, 15Psi	96Hrs
4	Forward Surge	8.3ms	Five times
5	Soldering Heat Resistance	Axial: 270±5°C SMD: 260°C(+5,-0)	7sec 10 sec
6	Solder-ability Test	235°C±5°C (for SnAgCu solder)	3 sec
7	HTSL	150°C±5°C	1000Hrs
8	HTRB	Tj Max / 80% VRRM	1000Hrs
9	H.T.H.H	85% H and 85°C	1000Hrs
10	H3TRB	85% H and 85°C, 80% VRRM (Max=100V)	1000Hrs
11	High Accelerated Life Experiments	85% H and 130°C, 80% VRRM (Max=42V)	96Hrs

◆ Quality Policy



ISO9001



ISO14001



IATF16949



QC080000



SONY Green Partner

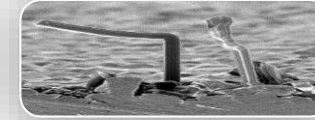
◆ Failure Analysis Capability



X-Ray



Void



Composition Analysis



SEM



C-SAM



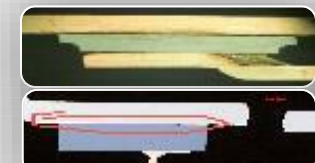
Grinding



Laser Decap



Lamination



Clear Observation



Internal Structure

Continuous Investment in R&D to Quickly Meet the Market Requirement



Yangzhou R&D center



Shanghai R&D Center



Wuxi R&D Center



Taiwan R&D Center



Japan R&D Center



US R&D Center



R & D

We have nine core teams which include SiC/GaN, MOSFET, Wafer, Packaging, Automotive, IGBT.



Talents

We are cooperating famous universities which attracting a team of experts good at chip design, advanced packaging design.



Facilities

Our R&D center building area 5000m²: reliability lab, failure analysis lab, simulation lab, comprehensive R&D.



Patents

We have been granted 357 national patents, among which 47 are invention patents.

R&D Investment **5%-10%**

Product Type

- | | | |
|------------------------------------|----------------------|------------------------|
| ● MOSFET | ID: 0.2A~60A | V_{DS} : 20V~100V |
| ● Schottky Barrier Rectifiers | I_F : 0.03A~15A | V_{BR} : 20V~200V |
| ● General Rectifier | I_F : 1A~8A | V_{BR} : 50V~1000V |
| ● TVS Rectifier | Power: 200W~6600W | V_{WM} : 7.0V~190V |
| ● ESD Rectifier | Power: 200W~500W | V_{RWM} : 5V~36V |
| ● Zener Diode | Power: 200mW~1500mW | Voltage: 2.4V~47V |
| ● Bipolar Triode | I_C : 0.1A~6.0A | V_{CBO} : 30V~300V |
| ● Small signal diode triode | I_F : 0.125A~0.25A | VBR: 75V~250V |
| ● IGBT Single Tube
(In Release) | I_C : 15A~75A | V_{CES} : 650V~1200V |

Packages



Product Features

- Advanced Automatic equipment to ensure product precision and stability.
- Automatic recipe control function to provide error-proof method for process parameter control.
- Entirely hand-free manufacturing process flow.
- Advanced MES manufacturing system to monitor product manufacturing process flow
- Dedicated Auto product line with certified equipment technician and operator.
- All product development are managed APQP process flow.
- Comply with Automotive Electronic Council AECQ101 Automotive Reliability Testing standards. Capable of supporting the Production Part Approval Process (PPAP).
- Registered automotive quality system IATF16949 and product design with ISO9001.

Application





DEMA Electronic AG

DEMA Electronic AG

Tuerkenstrasse No. 11

80333 Munich

Germany

Phone: +49 89 28 69 41-0

Fax: +49 89 28 35 09

Email: contact@dema.net

www.dema.net



DEMA Electronic Asia Ltd.

6/F Luk Kwok Centre

72 Gloucester Road

Wan Chai, Hong Kong

Phone: +852 3127 5637

Fax: +852 3127 5656

Email: dema.asia@dema.net

www.dema.net

