

Global Power Technology Co., Ltd

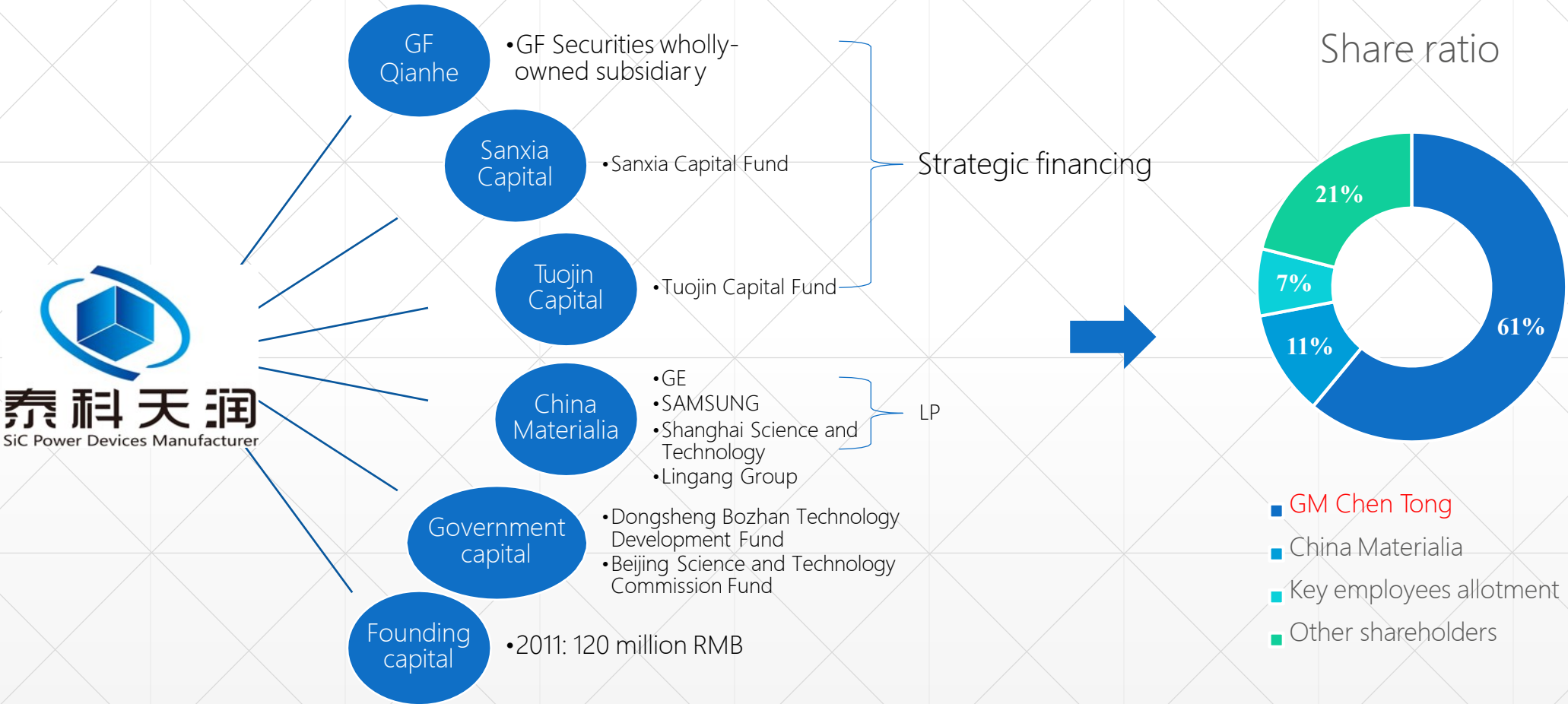
- Global Power Technology Co., Ltd. (GPT) is one of the pioneers of industrialization of silicon carbide (SiC) power devices in China. The first third-generation semiconductor material silicon carbide device manufacturing and application solutions provider.



1-Company information

- The company's headquarters is located in the Dongsheng Science and Technology Park in Zhongguancun, Beijing, China. It has a complete semiconductor fab, and it is the only domestic silicon carbide device mass production line that is market-oriented. It is the leading company of new materials semiconductors. The emerging power of high-end manufacturing.

Capital situation



SiC Chip production line overview



Class 100, 1000 and 10000 clean rooms



Carbon Sputtering Machine



HiT Annealing Oven/



HiT Ion Implanter



HiT Oxidation
Furnace

SiC Processing
equipment

New production line



At present, GPT is preparing to build a 6" SiC wafer fabrication plant in Jiangxi Jiujiang. The first phase investment is 300 million yuan. It is expected to be put into use at the end of 2020.

30,000 6" wafers

Annual production

8,000 4" wafers - current
stage

Awards and honors

Projects

- "13th Five-Year" Project
- SiC BJT Projects
- SiC MOSFET projects

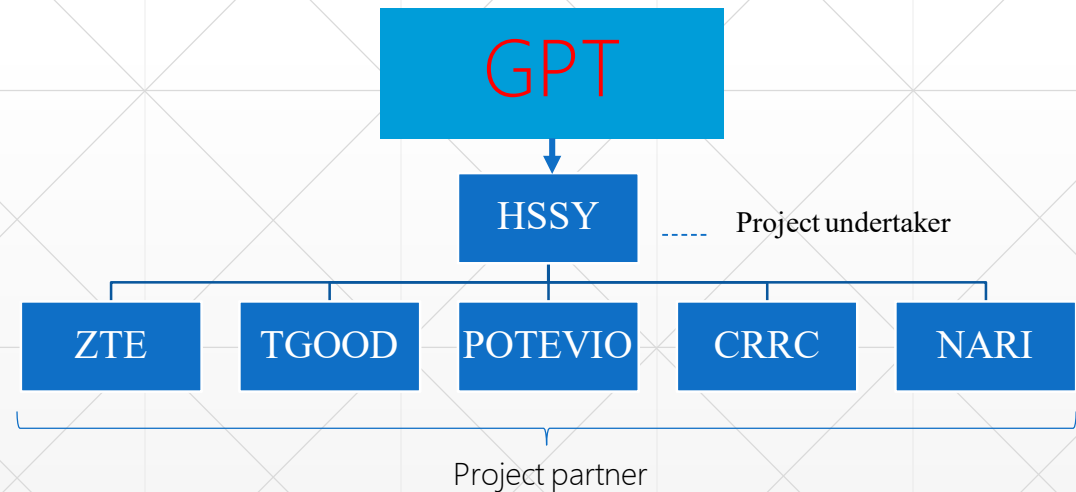
Certificates

- "Semiconductor Innovation and Technology Award"
- China Semiconductor Association
- Top10 of Zhongguancun Science and Technology Frontier Integrated Circuit Field

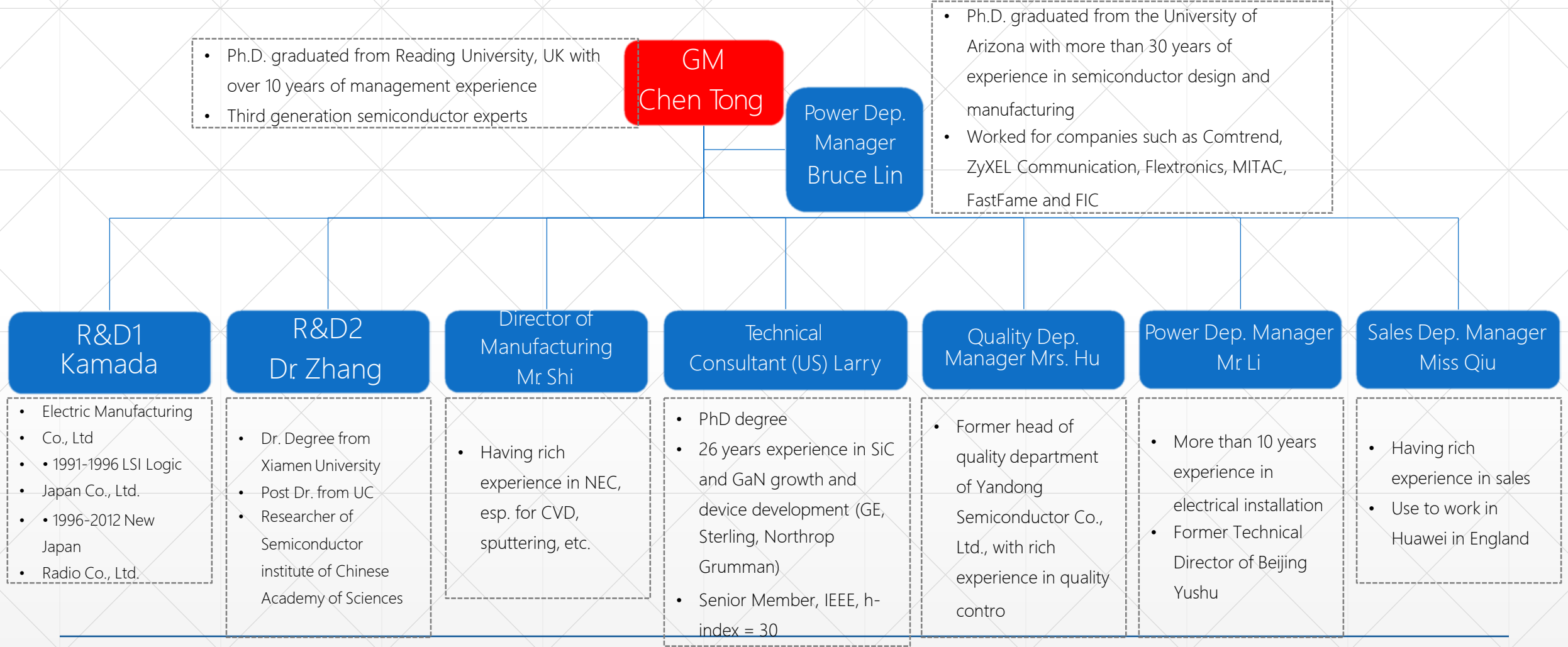
Awards

- National Torch Program Industrialization Demonstration Unit
- Ministry of Science
- Zhongguancun high-end leading talents
- Haidian District "Haiying Talents"
- Excellent entrepreneur
- High-tech enterprises

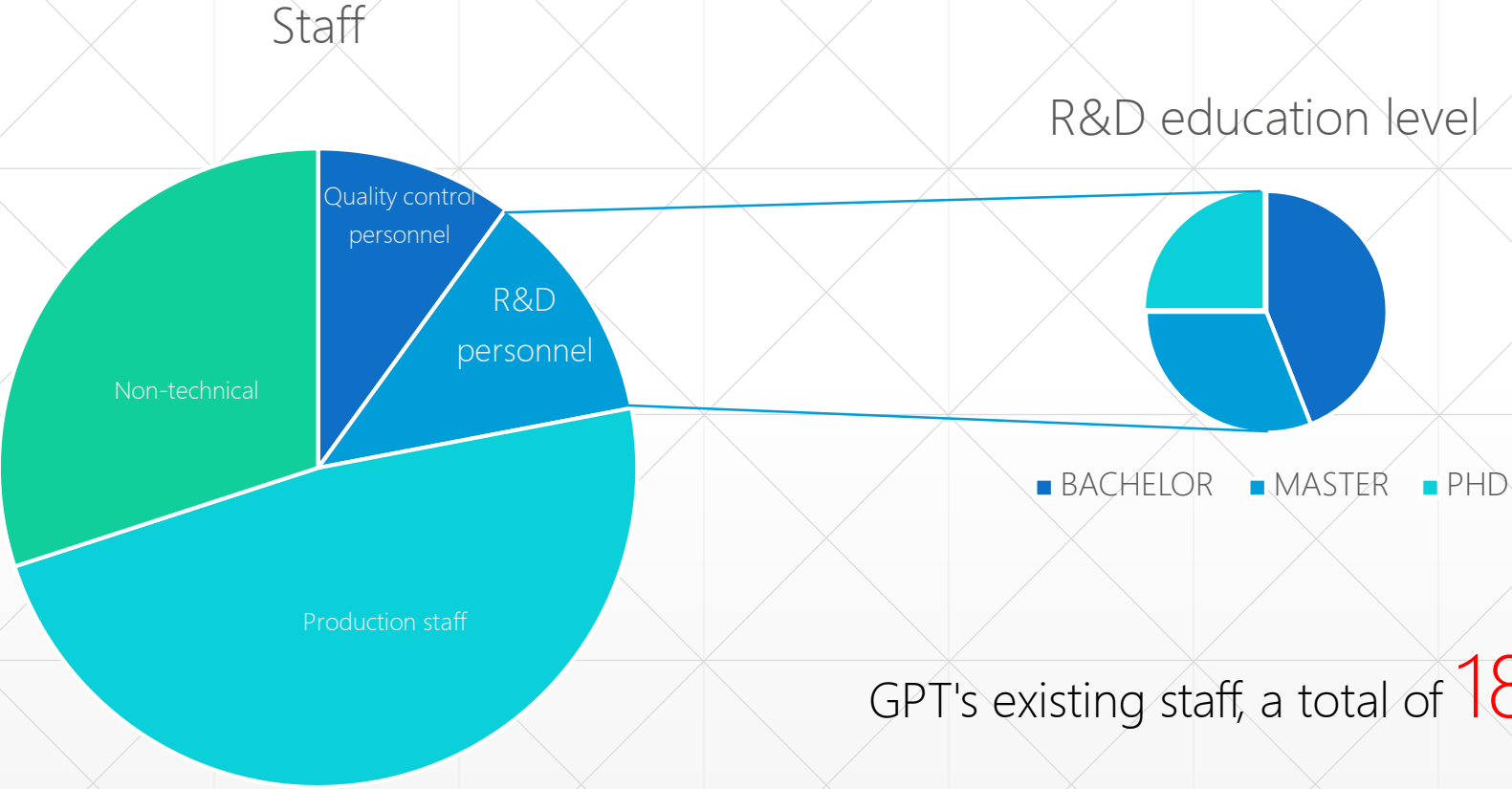
The company has obtained the 13th Five-Year Special Key Project of "Strategic Advanced Electronic Materials". General Manager Chen Hao was hired as an expert in this project. The project is dedicated to the use of 1200V silicon carbide devices in the field of charging piles, and plays a demonstration role in the charging of four cities in Beijing, Qingdao, Shenzhen and Nanjing and the Winter Olympics.



Organization



Technical Team




GPT's existing staff, a total of 182 people


Sales network

Domestic channel



 Beijing

 Shanghai


 Shenzhen

International channel



 Japan

 UK

 South Korea

 Germany

 Russia

 Switzerland

 USA

Certificate

Certification



- ☐ UL
- ☐ CE
- ☐ ROHS
- ☐ ISO9001
- ☒ IATF16949

Relability



- ☐ Self-test
- ☐ Thirf-party
- ☒ Client
 - depot verification



IATF16949 Certificate

X3

Band gap

- Increase voltage resistance
- Increase temperature resistance

X10

Breakdown electric field

- Reduce characteristic on-resistance
- Reduce high voltage application losses

X2

Saturation electron drift velocity

- High frequency working

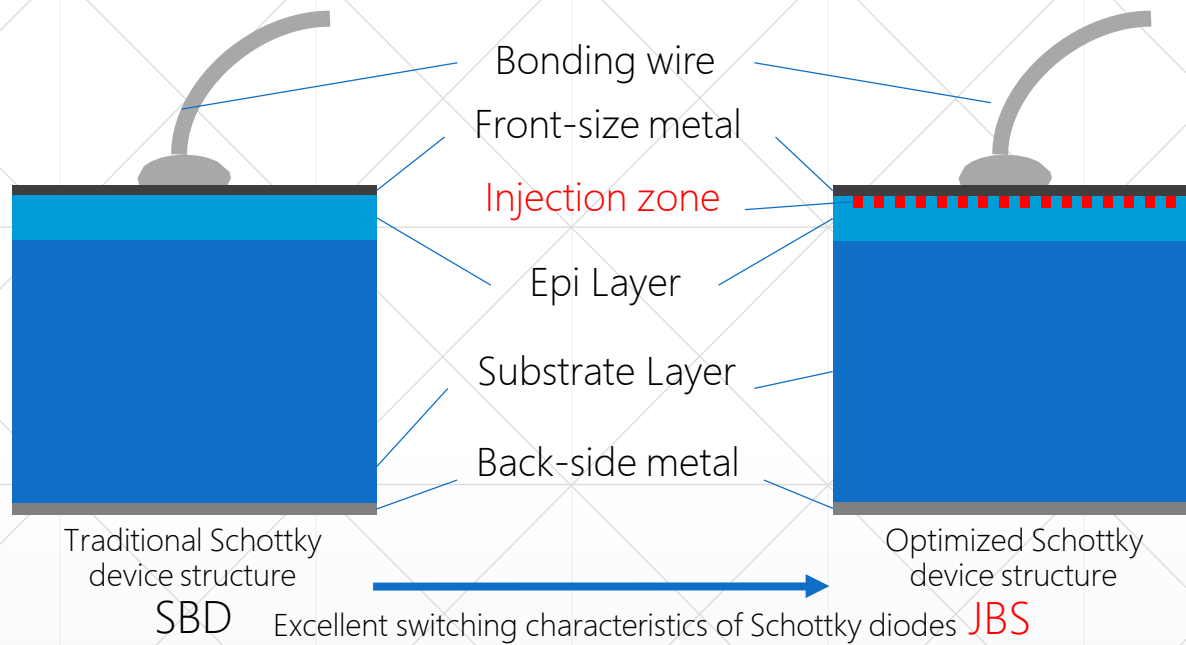
X3

Thermal conductivity

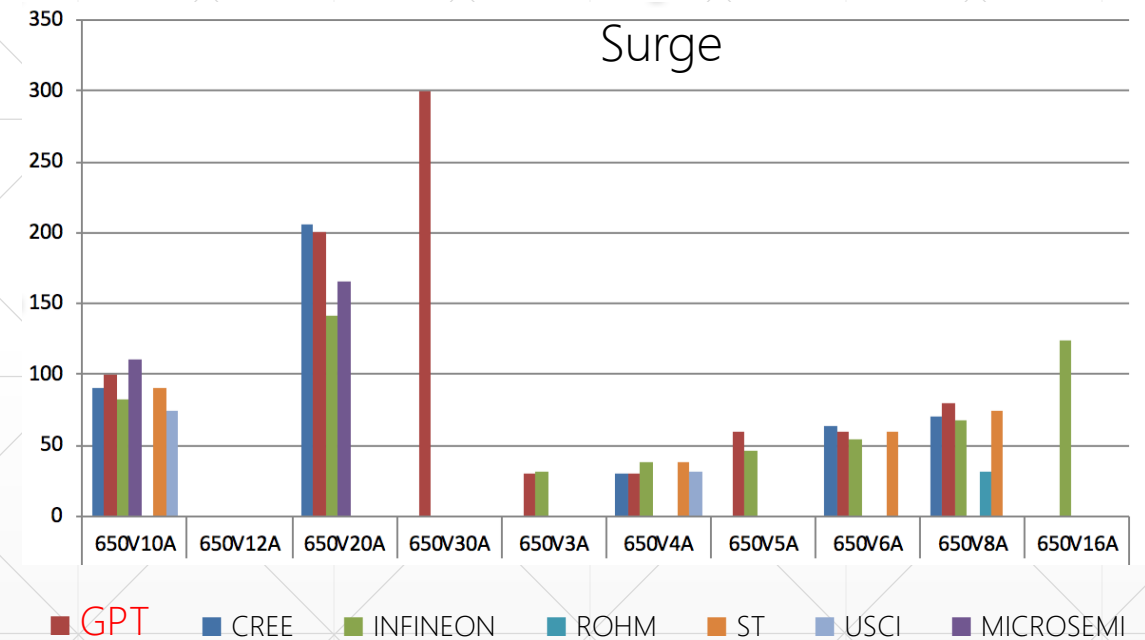
- Simplify cooling system design and cost
- Reduce product design difficulty
- Reduce maintenance costs
- Increase Severe working condition reliability

2- Product information

Global Power Technology product features



- Reduce static losses
- Improve thermal performance
- Increase surge tolerance



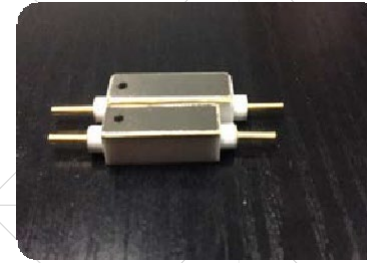
测试条件: $T_C=25^{\circ}\text{C}$, $t_p=10\text{ms}$, Half Sine Wave

Global Power Technology SiC product reference

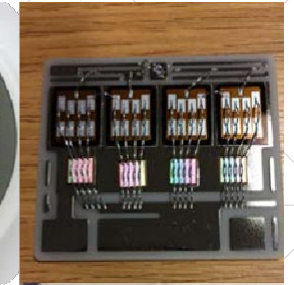
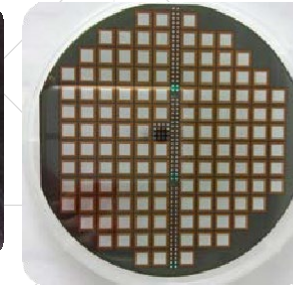
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Global Power Technology SiC production

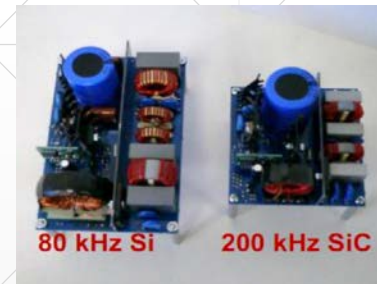
- In addition to the specifications listed in the selection table , also available 1700V5A/10A/15A/50A and 3300V0.6A/1A/2A/3A/5A/50A;
- According to customer requirements, basis on existing diode products, other matching plastic forms are available. ;
- For customers with bare chip needs, double-sided silver products are also available. ;
- Now SiC MOSFET and SiC BJT products available in small quantities on demand ;
- Can provide solutions for metal or ceramic packages for customers with high temperature requirements ;



$T_a=215^{\circ}\text{C}$ 7000V1A and 9000V1A diodes



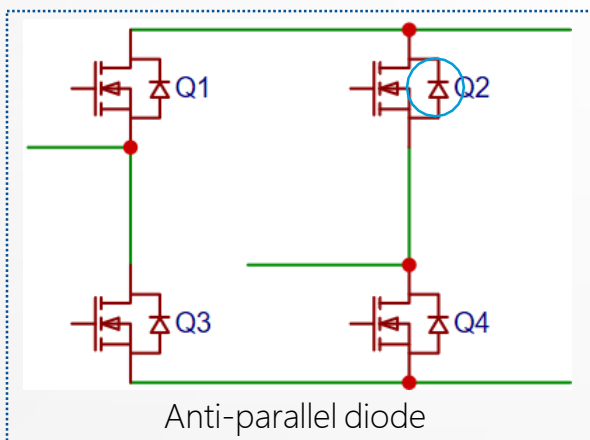
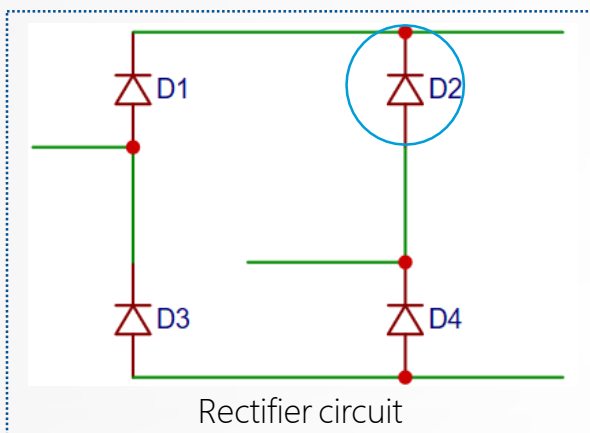
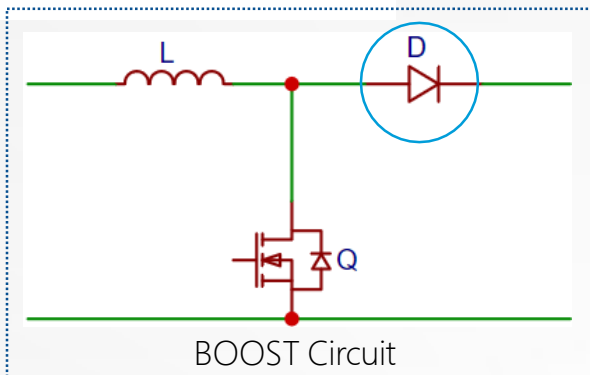
3300V50A chip for locomotive traction hybrid module



SiC solution for high frequencies



SiC can reduce coil size



Discrete
device

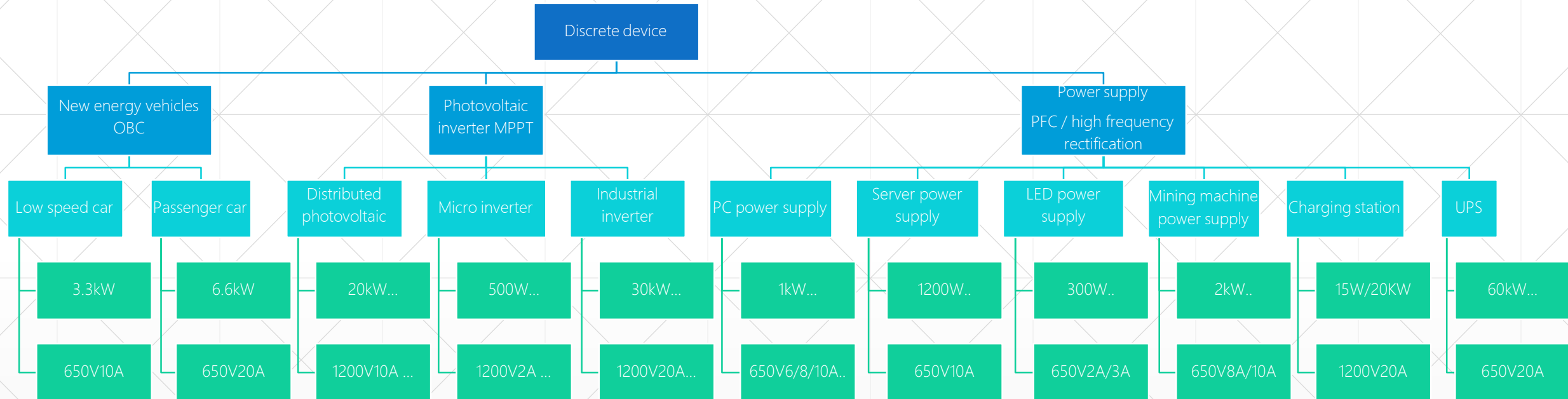
Board
products

Chip
product

Module
product

3- Application information

Application field



Other application areas : •Electric bike charger (Or a variety of high-power chargers for charging lithium batteries) • Hybrid module (IGBT + SiC diode) • Audio power supply • Electric appliance (Example: Industrial air conditioner) •Stage power supply

Contact

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