



斯达半导体概述和家电应用说明

2018-5-18



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Part One

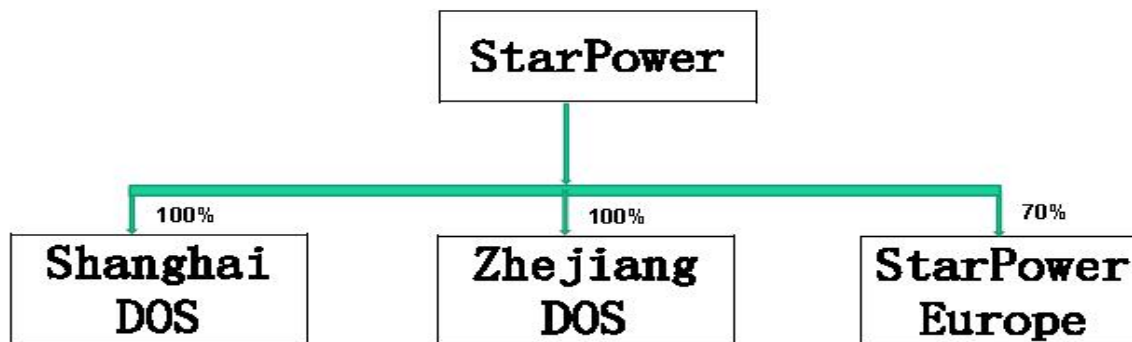
斯达半导体简介



- Established: on April 27, 2005
- Campus: 70,700 m²
- Total employees: ~ 500
- Revenue in 2017: ~\$ 100 million



Company Structures



StarPower Jiaxing (Headquarter)

7



- Fab1:
 - Clean room area 1200m² , mainly for half bridge IGBT modules (600V/1200V/1700V)
 - Monthly volume: 200k pcs per month (combined)
- Fab2 :
 - Clean room area is 2000m². mainly for econo and L/F type (6-pack, 7-pack) IGBT modules.
 - Monthly volume: Econo: 200k pcs per month (combined)
- Fab3:
 - Clean room area is 1500m², small volume of IPM modules (600V/1200V IPM) for white goods and other applications.



Shanghai Dosemi



- Located in Shanghai New Energy Vehicle Science Park
- Focus on IGBT modules for EV application
- Start production in Q4, 2017

Starpower Europe AG

- Founded in May 2014
- Cadenazzo, Switzerland
- European stock with logistic center
- Research Center in Nurnberg, Germany



Peter Frey

Managing Director Starpower Europe
23 years, Sales & Marketing experience at Semikron



Christian Kroneder

R&D Director, StarPower Europe,
19 years R&D Experience and Responsible for
component development at Semikron Germany

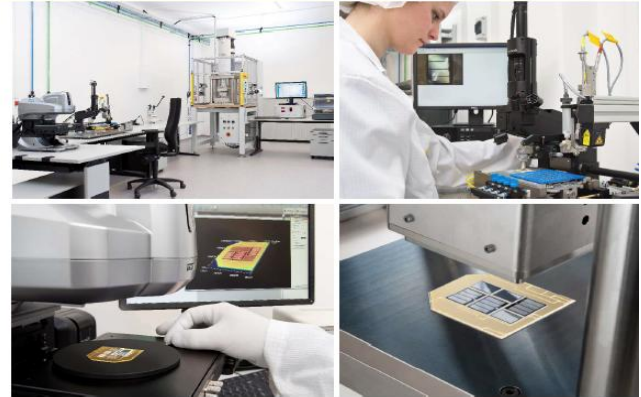


Zhejiang Dosemi



- Products including rectifier modules, FRD modules, discrete products etc...
- In production since 2013.

StarPower Europe R&D Center (Nurnberg)



1. 10 senior power semiconductor chips and module R&D engineers
2. Advanced process and analysis equipment in the lab ;

ISO9001 Certificate



TS16949 Certificate



4.1 The world market for power modules

The power module market was worth an estimated \$4.12 billion in 2016, an increase of 3.5% from 2015. Standard IGBT modules accounted for the most revenues, an estimated 45.7% of the 2016 total.

Revenues increased for four of the six power module product types in 2016; revenues for two declined.

The products with growing markets were MOSFET modules (by 31.5%), MOSFET-IPMs (by 19.3%), PIM/CIBs (by 3.3%), and Standard IBT modules (by 2.2%, slightly less than overall average).

The products with declining markets were thyristor-diode modules (-2.7%) and IGBT-IPMs (-0.5%).

Infineon Technologies had overtaken Mitsubishi Electric to become the leading power module manufacturer in 2015. In 2016, it extended its lead, increasing its share by 0.9 percentage points.

Mitsubishi lost market share due, in part, to the temporary closure of its Kumamoto power module production plant following an earthquake in April 2016.

Once again, the top 4 suppliers took almost 60% of the total power module market. However, having acquired Fairchild, ON Semiconductor has established itself firmly in 5th place in the power module market ranks.

World power modules supplier market share estimates
(Percentage of total \$ revenues)

	2015r	2016	15-16
1 Infineon Technologies	20.5%	21.4%	0.9%
2 Mitsubishi (inc. Powerex)	19.4%	17.8%	-1.6%
3 Fuji Electric	9.5%	9.6%	0.1%
4 Semikron	10.0%	9.3%	-0.7%
5 ON Semiconductor	2.4%	6.0%	3.6%
6 Vicotech	2.5%	3.4%	0.9%
7 IXYS	2.7%	2.7%	0.0%
8 Danfoss	2.4%	2.7%	0.3%
9 Starpower Semiconductor	2.1%	2.5%	0.3%
10 Bosch	1.5%	2.0%	0.5%
Others	27.1%	22.8%	-4.3%
Total market size =	\$3.98 billion	\$4.12 billion	3.5%

斯达半导体



Main Customers



Inverter



Wind Power



Solar Power



Welding



EV/HEV



UPS / EPS



小功率IGBT模块系列



中等功率IGBT模块系列



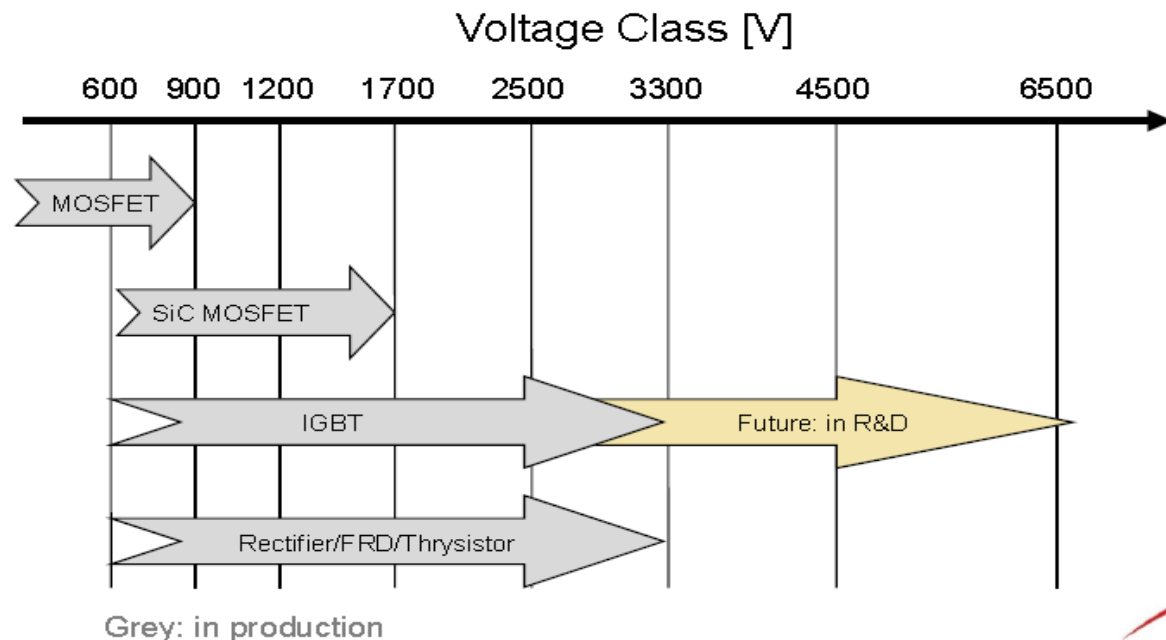
碳化硅模块及IPM模块



大功率IGBT模块系列



Product Portfolio



02

Part Two

家电应用介绍



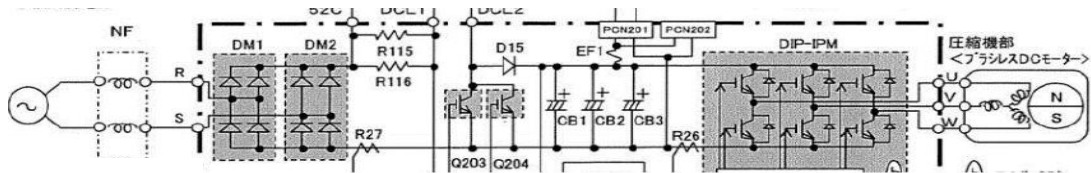
洗衣机



变频洗衣机	
斯达产品	ID10FFT60U1S
规格参数	10A 600V IPM
兼容性	兼容主流IPM封装

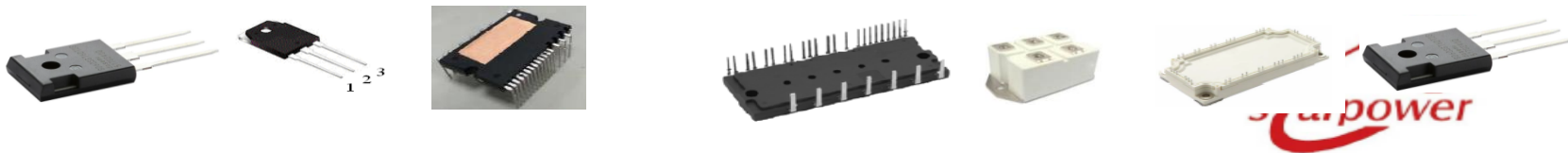


空调

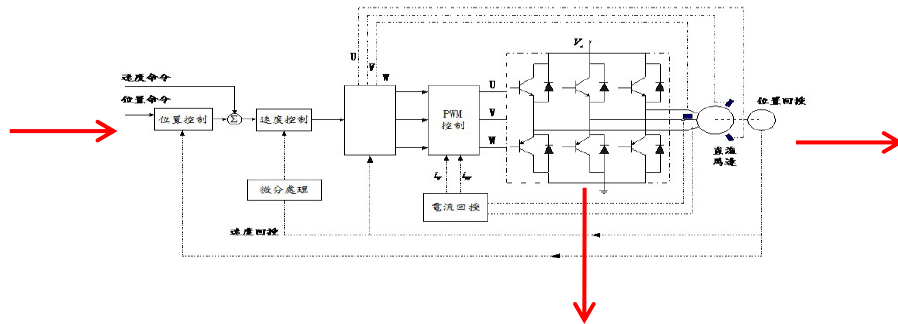


家用变频空调	
IPM	ID15FFT60U1S/ID30FFT60U1S/ID50FFT60U2S
IGBT	DG30F06T2/DG40F06T2
FRD	DK60H06T3

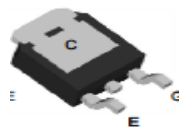
变频多联机	
IPM	ID50FFT60U2S
PIM	GD50PIT120C5SN/GD75PIT120C6SN
Rectifier	RD50FFS180K1S/RD75FFS180K1S
IGBT	DG40F06T2



冰箱



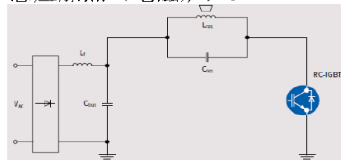
变频冰箱	
斯达产品	DG5F06T3
规格参数	5A 600V 分离器件
兼容性	通用型TO-252封装



电磁炉（感应加热）



感应加热（电磁炉）：



感应加热	
斯达产品	DG20R12T2
规格参数	20A 1200V 分离器件
技术特点	IGBT与二极管一体化，兼容国外产品



Dream is driven by quality

Thank you

