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1.1

-8

2

CSF

ICBT SJ

%

-100V

1500V

DSFET

C/GaN

5-10

2020

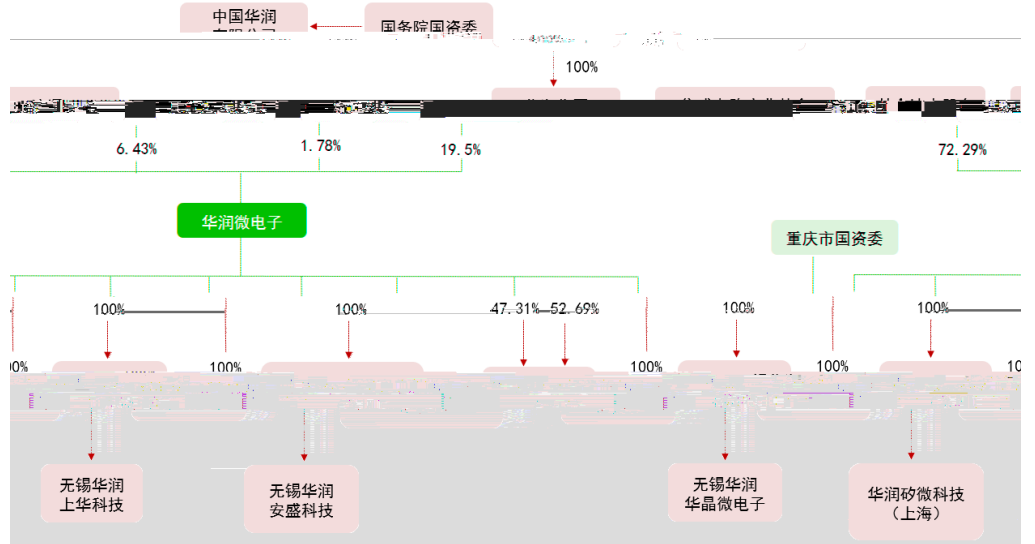
77%

65%

5

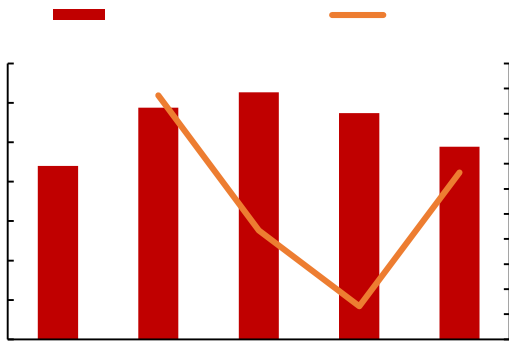
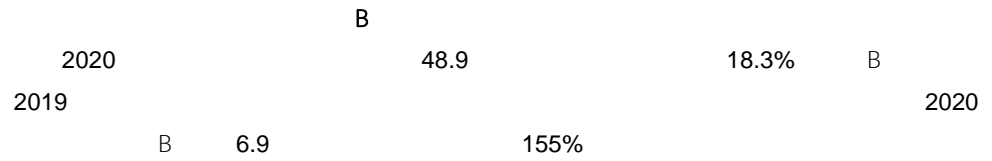


1.2 9
1983 % 4 1999
2001 2003 6
2004 0597.HK 2008
2009 8 2011 2017
2018 2019
2020

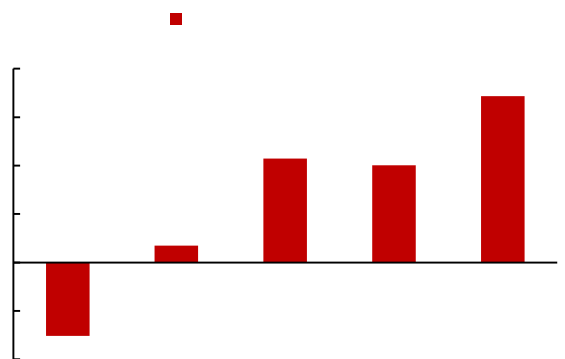


wind

1.3



wind



wind





* SiC MOSFET IGBT
ROHM

/

2
3

1/2

2021

24

EVTank

25

2021

MOSFET

EVTank

< 2019

30%	50%	70%	500 MOSFET	1.13	1.38	1.63
	2.7	3.1	3.5			

26 MOSFET

	2019E	2020E	2021E	2022E

DC/AC

%

50

				15%-30%					
	10	20	8	?	8	20%			
			2019	57%	2023	88%	IPM		MOSFET
IGBT								12	
				2019	41		2023	70	4
CAGR	14%								

<

10

MOSFET 2016 %
/

	MOSFET	IGBT	SJNFET	/
--	--------	------	--------	---

%

1

3

%

%

MOS

2.2

5000



/

IGBT

IGBT

2

f Ø 6 -YS/"k ß. jBio ^†E, %q@ k §ðÃq c †*§•2€ynòŸ †E, %q@ • f

56.2%

019

7 10

PT6007B PT6010

3.3

%

DC/AC	SiC	DC/DC	Si	OBC	SiC	DC/AC
75%	SiC	Si		6kg	43%	
20%		SiC	SiC		3%	2025
	6					

30% GaN 2019 7.4 2025 20 CAGR
12%

Yole

Yole

SiC GaN
1.42 2.44 6 650V 1200V SiC JBS MOSFET
SiC JBS
GaN 650V
MOCVD SiC GaN

2019

90
% MEMS

50%
40%

Yole

MEMS

MEMS

8

6

MEMS

6

8

2019

			2020H1

4.3

%

2020H1

1.27

35%

50

38

42

5G

AIOT

	2020-2022					
1)						
2)			5G			20-22
	22.7%	23.3%	23.7%			
				20-22		35.1% 35.7%
	35.8%					
	20-22		28.3%	29.4%	30.2%	
3)				20-22		1.64% 1.63% 1.58%

	2020-2022			0.83	1.07	1.25		%
IDM	MOSFET	IGBT						
+	% IGBT			IDM			MOSFET	
	2021	72	PE			77		

1

MOSFET

MOSFET IGBT

2

--

3

%

	2018A	2019A	2020E	2021E	2022E
:	1,538	1,931	8,353	9,295	10,022

	2018A	2019A	2020E	2021E	2022E
:	6,271	5,743	6,888	7,936	8,893

·
%

12 %

/

15%

5% 15%

-5% +5%

-5%

<

:

)

5%

-5% +5%

-5%

<

<

)

%

" " " "

