

Public Products List

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PCN Title: STx220N6F7, STx140xx (OD68, OD6E): Activation of HHGrace Fab3 (Industrial segment)

PCN Reference: ADG/21/13051

Subject: Public Products List

Dear Customer,

Please find below the Standard Public Products List impacted by the change.

STD140N6F7	STL140N6F7	STP220N6F7
STP140N6F7	STF140N6F7	STL220N6F7

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PRODUCT/PROCESS CHANGE NOTIFICATION

TITLE	STx220N6F7 ,STx140xx (OD68,OD6E): Activation of HHGrace Fab3 (Industrial segment)		
IMPACTED	See list		
PRODUCTS			
MANUFACTURING	Silicon Diffusion		
STEP			
INVOLVED PLANT	HHGrace fab3 (China)		
CHANGE REASON	Capacity increase		
CHANGE DESCRIPTION	HHGrace fab3 will be activated for a mixed flow (see details below)		
TRACEABILITY	Dedicated Finished Good codes		
VALIDATION	Qualification will be performed on test vehicle STL220N6F7 (silicon line OD6801) within December 2021 (see details below)		



OFT60 Technology (Industrial segment) Activation of Fab3 in HHG



Agenda

- 3 Change Description
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- 5 Selected Test Vehicles/ Impacted Products
- 6 Test vehicle reliability program

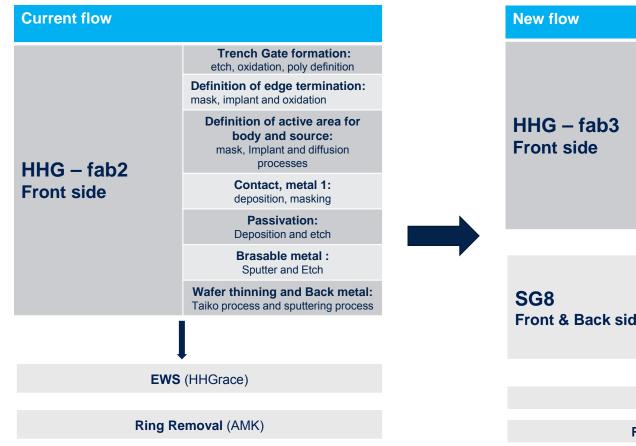


Change description

- Qualification activity is on going at HHGrace Fab3 to activate diffusion of OFT60 Technology (Industrial segment)
- The activity is started for some products & lines (described in next slides) and the target is to complete it in Q4'21 with MC30 achievement.
- A change in diffusion flow is introduced with activation of Fab3 and it is described in the next slide.
 The diffusion process flow performed in Fab3 is the same of Fab2
- No change in product characteristics



Current flow versus New one





^{*} For products where Brasable MTL is not present the SG8 flow consists only in WAFER THINNING & BACK METALIZATION

Selected Test Vehicles/ Impacted Products

- Test Vehicle of technology transfer: STL220N6F7, Silicon line OD6801
- Impacted products:

line	ср	package	plant	MC30	Samples Availability
OD6801	STL220N6F7	Power FLAT	SHENZHEN B/E	Dec'21	De'21
	STP220N6F7	TO 220	SHENZHEN B/E	Dec'21	De'21
OD6E01		TO 252 DPAK	Tongfu Microelectronics Co Ltd	Jan'22	Jan'22
	STD140N6F7		SHENZHEN B/E	Jan'22	Jan'22
	STF140N6F7	TO 220 ISO FULL PACK	SHENZHEN B/E	Dec'21	De'21
	STL14060	Power FLAT	Tongfu Microelectronics Co Ltd	Jan'22	Jan'22
	STL140N6F7	Power FLAT	SHENZHEN B/E	Dec'21	De'21
		Power FLAT	Tongfu Microelectronics Co Ltd	Jan'22	Jan'22
	STP140N6F7	TO 220	SHENZHEN B/E	Dec'21	Dec'21



Test vehicle reliability program

To qualify the new flow HHG Fab3/ SG8
Test Vehicle is STL220N6F7 line OD6801.
3lots will be used. Here the qualification flow that will be followed and the target is to achieve mc30 in Q4'21

#	TEST NAME	DESCRIPTION / COMMENTS	TEST FLAG
1	TEST	Pre- and Post- Stress Electrical Test	Yes
2	PC	Preconditioning	Yes
3	PV	Parametric Verification	Yes
4	HTRB	High Temperature Reverse Bias	Yes
5	HTGB	High Temperature Gate Bias	Yes
6	HTSL	High Temperature Storage Life	Yes
7	THB	Temperature Humidity Bias	Yes
8	AC	Autoclave	Yes
9	TC	Temperature Cycling	Yes
11	ESD -HBM	Human Body Model ESD	Yes
12	ESD - CDM	Charged Device Model ESD	Yes

