

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.		ADG/22/13512
1.3 Title of PCN		Test Program and Datasheet Revision
1.4 Product Category		Power MOSFET HV - MDmesh M5
1.5 Issue date		2022-06-27

2. PCN Team

2.1 Contact supplier	
2.1.1 Name	ROBERTSON HEATHER
2.1.2 Phone	+1 8475853058
2.1.3 Email	heather.robertson@st.com
2.2 Change responsibility	
2.2.1 Product Manager	Maurizio GIUDICE
2.1.2 Marketing Manager	Paolo PETRALI
2.1.3 Quality Manager	Vincenzo MILITANO

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Method (EWS-FT)	Different test flow (step removal, step order change, temperature change, quality control steps optimization, test time reduction, etc..) if test flow is not agreed with Customer.	SHENZHEN (China), Tongfu Microelectronics (China)

4. Description of change

	Old	New
4.1 Description	IAR (Maximum current during repetitive or single pulse avalanche) = 17A	IAR (Maximum current during repetitive or single pulse avalanche) = 12A
4.2 Anticipated Impact on form, fit, function, quality, reliability or processability?	no impact	

5. Reason / motivation for change

5.1 Motivation	The existing test point for IAR of 17A was incorrectly selected
5.2 Customer Benefit	SERVICE CONTINUITY

6. Marking of parts / traceability of change

6.1 Description	by Q.A. number
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7. Timing / schedule

7.1 Date of qualification results	2022-06-16
7.2 Intended start of delivery	2022-09-27
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description		
8.2 Qualification report and qualification results	In progress	Issue Date

9. Attachments (additional documentations)

13512 Public product.pdf
13512 Test Program and Datasheet Revision.pdf

10. Affected parts

10. 1 Current		10.2 New (if applicable)
10.1.1 Customer Part No	10.1.2 Supplier Part No	10.1.2 Supplier Part No
	STY112N65M5	
	STY139N65M5	

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Public Products List

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PCN Title : Test Program and Datasheet Revision

PCN Reference : ADG/22/13512

Subject : Public Products List

Dear Customer,

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

STY112N65M5	STY139N65M5	
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Power Transistor Sub-Group
High Voltage Business Unit
Automotive & Discrete Group (ADG)

Process Change Notification

Test Program and Datasheet Revision

Dear Customer,

to guarantee the continuity of the service, this communication intends to inform you that we will modify the Testing Program and the Technical Datasheet of the mentioned products.

In particular, the UIS (Unclamped Inductive Switching) Test was done with an incorrected I_{AR} value, out of Power MOSFET Transistors standard test procedure.

We have adopted a new value of I_{AR} , maintaining the same E_{AS} , and this did not show any change on the quality and reliability of the involved products.

Table 3. Avalanche characteristics

Symbol	Parameter	Current Value	New Value	Unit
I_{AR}	Maximum current during repetitive or single pulse avalanche	17	12	A
E_{AS}	Single pulse avalanche energy (starting $T_J = 25^\circ C$, $I_D = I_{AR}$, $V_{DD} = 50 V$)	2400	2400	mJ

The involved product is listed in the table below:

Product Family	Technology	Involved Product	Package
High Voltage Power MOSFET Transistors	MDmesh M5	ST140N65M5D7 STY112N65M5 STY139N65M5	Die Sale D7 Max247™ Max247™

Qualification program and results availability:

The reliability test report is not applicable.

Samples availability:

Samples of involved products will be shipped upon request.

Change implementation schedule:

The production start and first shipment will be implemented after 27 September 2022.

Marking and traceability:

Unless otherwise stated by customer specific requirement, traceability of parts with $I_{AR}=12A$, will be ensured by Q.A. number.

Yours faithfully,