

PRODUCT / PROCESS CHANGE NOTIFICATION

1. PCN basic data

1.1 Company		STMicroelectronics International N.V
1.2 PCN No.		ADG/19/11530
1.3 Title of PCN		Mold compound replacement for TO247 automotive
1.4 Product Category		Automotive rectifiers and SCRs in TO247 package. STPSxxxY, STPSCxxxY, STTHxxxY, STBRxxxY, TNxxxY series.
1.5 Issue date		2019-05-06

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	Richard RENARD
2.1.2 Marketing Manager	Philippe LEGER
2.1.3 Quality Manager	Jean-Paul REBRASSE

3. Change

3.1 Category	3.2 Type of change	3.3 Manufacturing Location
Materials	New direct material part number (same supplier, different supplier or new supplier), Mold compound	ST assy site in China

4. Description of change

	Old	New
4.1 Description	Samsung SDI product termination of the following references of molding compound for through hole packages	Replacement of current mold compounds with alternative material. ST is already proceeding with new resins evaluation and qualification, to guarantee adequate products continuity.
4.2 Anticipated Impact on form,fit, function, quality, reliability or processability?	no	

5. Reason / motivation for change

5.1 Motivation	Product discontinuance from current supplier.
5.2 Customer Benefit	SERVICE CONTINUITY

6. Marking of parts / traceability of change

6.1 Description	internal codification and QA number
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7. Timing / schedule

7.1 Date of qualification results	2019-08-30
7.2 Intended start of delivery	2019-09-13
7.3 Qualification sample available?	Upon Request

8. Qualification / Validation

8.1 Description	
8.2 Qualification report and qualification results	In progress

9. Attachments (additional documentations)

11530 Public product.pdf
11530 PCN-TO247 automotive.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
	STBR3012WY	
	STBR6012WY	
	STPS4045CWY	
	STPSC20065WY	
	STPSC20H065CWY	
	STPSC40065CWY	
	STTH15RQ06WY	
	STTH30L06WY	
	STTH30RQ06WY	
	STTH30ST06WY	
	STTH6010WY	
	STTH60RQ06WY	
	TN3050H-12WY	
	TN5050H-12WY	

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(1) ADG: Automotive and Discrete Group

PCN

Product/Process Change Notification

Mold compound replacement for TO247 automotive

Notification number:	ADG-DIS/19/11530	Issue Date	30/04/2019		
Issued by	Aline Augis				
Product series affected by the change		Automotive rectifiers and SCRs in TO247 package. STPSxxxY, STPSCxxxY, STTHxxxY, STBRxxxY, TNxxxY series.			
Type of change		Back end realization			
Description of the change					
Following 11478 Early Notification sent in Week 15-2019, the change is the mold compound replacement for TO247 package.					
Reason for change					
Product discontinuance from current supplier.					
Former versus changed product:		<p>The changed products do not present modified electrical, dimensional or thermal parameters, leaving unchanged the current information published in the product datasheet</p> <p>The footprint recommended by ST remains the same.</p> <p>There is no change in the packing modes and the standard delivery quantities either.</p> <p>The products remain in full compliance with the ST ECOPACK®2 grade ("halogen-free").</p>			
Disposition of former products					
Delivery of current product will be done until stock depletion.					
Marking and traceability					
No change of marking. Traceability through new finished good codes (printed on labels).					
Qualification forecasted date	Week 35-2019				

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Forecasted sample availability

Samples will be available on demand with a typical lead time of 5 weeks after order entry.

Change implementation schedule

Sales types	Estimated production start	Estimated first shipments
All Commercial Products	Week 36-2019	Week 49-2019

Comments: With early PCN acceptance, possible shipment starting on W37 on selected part numbers.

Customer's feedback

Please contact your local ST sales representative or quality contact for requests concerning this change notification.

Absence of acknowledgement of this PCN within 30 days of receipt will constitute acceptance of the change
Absence of additional response within 180 days of receipt of this PCN will constitute acceptance of the change

Qualification program:

Qualification will be performed through a global plan covering both TO220 and TO247 packages with the following Product Test Vehicles.

Product Test Vehicle	Package
TN5050H-12WY	TO247
STTH60RQ06WY	TO247
STTH30R4WY	TO247
STBR6012WY	TO247
STPS4045CWY	TO247
STTH50W03CW	TO247
STPS40H100CW	TO247
STPSC20H12DY	TO220
ACST1235-7T	TO220
TYN612MRG	TO220
STPS41H100CTY	TO220
STTH1210DY	TO220
STPS20200CT	TO220
STPS41H100CT	TO220
FERD40H100STS	TO220

Reliability tests will be conducted following below table.

Stress	Abrv	Reference
High Temperature Reverse Bias	HTRB	MIL-STD-750-1 M1038 Method A (for diodes, rectifiers)
AC blocking voltage	ACBV	MIL-STD-750-1 M1040 Test condition A (for SCR)
High Humidity High Temperature Reverse Bias	H3TRB	JESD22A-101
Unbiased Highly Accelerated Stress Test	UHAST	JESD22A-118 or A101
Temperature Cycling	TC	JESD22A-104
Intermittent Operational Life / Thermal Fatigue	IOL	MIL-STD-750 Method 1037
Destructive Physical Analysis	DPA	AEC-Q101-004 Section 4
Resistance to Solder Heat	RSH	JESD22 A-111 (SMD) B-106 (PTH)
Solderability	SD	J-STD-002 JESD22B102



Public Products List

Public Products are off the shelf products. They are not dedicated to specific customers, they are available through ST Sales team, or Distributors, and visible on ST.com

PCN Title : Mold compound replacement for TO247 automotive

PCN Reference : ADG/19/11530

Subject : Public Products List

Dear Customer,

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

STPSC40065CWY	STTH30L06WY	STTH6010WY
STTH30ST06WY	STPSC20065WY	STTH30RQ06WY
STBR3012WY	TN5050H-12WY	STPS4045CWY
STTH15RQ06WY	STTH3010WY	STBR6012WY
STTH60RQ06WY	TN3050H-12WY	STPSC20H065CWY



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