

## PRODUCT/PROCESS CHANGE NOTIFICATION

PCN MPA-DIS/06/1918 Notification Date 07/17/2006

# MPA - ASD & IPAD Division

SCRs and TRIACs in RD-91 Package

New Moulding Compound in our Philippines Assembly Location

DIS - ASD & IPAD

Product Identification (Product Family/Commercial Product)	SCRs and TRIACs in RD-91 Package			
Type of change	Package assembly material change			
Reason for change	Termination of the currently used moulding compound			
Description of the change	Replacement of current resin Huntsman ref XG1184/1185 by new resin Protavi ref L127-4			
Product Line(s) and/or Part Number(s)	See attached			
Description of the Qualification Plan	See attached			
Change Product Identification	Trace code - Traceability also ensured by QA nbr			
Manufacturing Location(s)				

#### Table 1. Change Identification

#### Table 2. Change Implementation Schedule

Forecasted implementation date for change	21-Jul-2006
Forecasted availabillity date of samples for customer	10-Jul-2006
Forecasted date for <b>STMicroelectronics</b> change Qualification Plan results availability	10-Jul-2006
Estimated date of changed product first shipment	13-Oct-2006

#### Table 3. Change Responsibility

	Name	Signature	Date
Division Product Manager	S. CHAMARD		Jul.10 ,06
Division Q.A. Manager	A. BESSON		Jul.10 ,06
Division Marketing Manager	J.B. MOREAU		Jul.10 ,06

#### Table 4. List of Attachments

Customer Part numbers list	
Qualification Plan results	

	>		
Customer Acknowledgement of Receipt	PCN MPA-DIS/06/1918		
Please sign and return to STMicroelectronics S	Sales Office Notification Date 07/17/2006		
Qualification Plan Denied	Name:		
Qualification Plan Approved	Title:		
	Company:		
🗖 Change Denied	Date:		
Change Approved	Signature:		
Remark			



PRODUCT/PROCESS CHANGE NOTIFICATION

PCN MPA-DIS/06/1918

## MPA - ASD & IPAD Division<sup>1</sup>

SCRs and TRIACs in RD-91 Package:

New Moulding Compound in our Philippines Assembly Location



<sup>(1)</sup> MPA: Micro, Power, Analog - ASD: Application Specific Device - IPAD: Integrated Passive and Active Devices

#### WHY THIS CHANGE?

The purpose of this document is to announce the use of **a new moulding compound** for the production of our **SCRs** and **TRIACs** in **RD-91** package in our **Philippines assembly plant**, in replacement of the current one.

This change is due to the **termination of the currently used moulding compound** for the assembly of our RD-91 package.

#### WHAT IS THE CHANGE?

The **Protavic ref L127-4** epoxy resin will be used in replacement of the Huntsman ref XG1184/1185 resin currently used for the RD-91 package assembly, according to the time schedule provided in the present document.

The products involved in this change are **all SCRs** and **TRIACs in RD-91** package. The P/Ns involved in this change are listed below.

Product Sub-Family	RD-91 P/N	Product Description		
	BTA25-400B	Std Triac 25A 400V 50mA		
	BTA25-600B	Std Triac 25A 600V 50mA		
	BTA25-600BW	Snbless Triac 25A 600V 50mA		
	BTA25-600CW	Snbless Triac 25A 600V 35mA		
	BTA25-700B	Std Triac 25A 700V 50mA		
TRIACs	BTA25-800B	Std Triac 25A 800V 50mA		
	BTA25-800BW	Snbless Triac 25A 800V 50mA		
	BTA40-400B	Std Triac 40A 400V 50mA		
	BTA40-600B	Std Triac 40A 600V 50mA		
	BTA40-700B	Std Triac 40A 700V 50mA		
	BTA40-800B	Std Triac 40A 800V 50mA		
SCRs	BTW67-1000	Std SCR 40A 1000V 80mA		
	BTW67-200	Std SCR 40A 200V 80mA		
	BTW67-600	Std SCR 30A 600V 50mA		

The use of the new moulding compound will have **no impact** on the **dimensional, thermal** and **electrical parameters of the products** with reference to the product datasheet. This was verified by the qualification program.

There is no change in the **lead finish** and the products will be delivered in compliance with the **RoHS**<sup>1</sup> directive (ST Ecopack specification) and the **UL 94-V0** standard<sup>2</sup>.

There is no change either in the packing mode and the standard delivery quantities.

- (1) Restriction of the use of certain Hazardous Substances
- (2) Certification pending, samples with new molding compound delivered with differentiated marking.

#### HOW AND WHEN?

#### Qualification and test results:

The **reliability test plan** supporting the qualification program for the new moulding compound is provided in **appendix 1** of the present document.

A **reliability report** including the first test results (500 Hrs minimum) is available on request **now**.

#### Sampling:

Qualification samples of the devices used as test vehicle produced with the new resin are available on request now.

Product Sub-family	Salestypes (test vehicles)		
SCRs	BTW67-1000		
TRIACs	BTA25-800B		

Change implementation schedule:

The **production start** and **first shipments** will be implemented according to our work in progress and materials availability as indicated in the schedule below:

Production Start	1st Shipments		
From Week 29 - 06	From Week 41 - 06		

Lack of acknowledgement of the PCN within **30 days** will constitute acceptance of the change. After acknowledgement, lack of additional response within the **90 day** period will constitute acceptance of the change (Jedec Standard No. 46-B). In any case, **first shipments** may start earlier with customer's **written agreement**.

#### Marking and Traceability:

The change will be followed by the **trace code** marked on the device and the **traceability** for the moulding compound will be ensured by an **internal codification** and by the **Q.A. number**.

Appendix 1: Reliability tests for qualification program.



### SCRs and TRIACs in RD-91 Package: New Moulding Compound in our Philippines Assembly Location

#### **Reliability tests plan for QUALIFICATION PROGRAM**

Product Sub-Family	Test Vehicle Salestypes
SCRs	BTW67-1000
TRIACs	BTA25-800B

QUALIFICATION TESTS					
TEST	CONDITIONS	DURATION	NBR OF LOTS (*)	SAMPLE SIZE	ACCEPTANCE CRITERIA
Parametric verification	Data sheet specification	Not applicable	3	30 pcs / lot	Datasheet
Temperature Cycling JESD22 A104	-55°C/+150°C - Air/Air	1000 cycles	3	77 pcs / lot	0 failure
Temperature Humidity Bias JESD22 A101	Tamb = 85°C RH = 85% V = VR = 100V	1000 hours	3	77 pcs / lot	0 failure
HTRB JESD22 A108	V = VRRM Tj = 125°C	1000 hours	3	77 pcs / lot	0 failure

(\*) Lots of test vehicles above from 3 different assembly lots.

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