

## FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20605

Generic Copy

Issue Date: 08-Aug-2014

TITLE: Qualification of G700LS Mold Compound in SMB

PROPOSED FIRST SHIP DATE: 08-Nov-2014

AFFECTED CHANGE CATEGORY(S): Assembly

#### FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Siti Nurhaza Mohd Ramli <fg4m6z@onsemi.com> or <Eben.Lim@onsemi.com>

**SAMPLES:** Contact your local ON Semiconductor Sales Office

#### **ADDITIONAL RELIABILITY DATA: Available**

Contact your local ON Semiconductor Sales Office or <<u>cheanching.sim@onsemi.com</u>> or <<u>nicky.siu@onsemi.com</u>>

## **NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

#### **DESCRIPTION AND PURPOSE:**

The list of devices in this PROCESS CHANGE NOTICE have been qualified by ON Semiconductor in Seremban Malaysia to use an alternate mold compound G700LS for assured supply and manufacturing flexibility.

G700LS mold compound is already in production at ON Semiconductor for numerous packages including several DFN type packages, SSOP and TSSOP type packages, as well as some SO8FL, Micro 8 and SOIC 16 type packages.

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# **RELIABILITY DATA SUMMARY:**

## **Reliability Test Results:**

## NRVBS3200T3G

| Test:               | Conditions:  | Interval:            | Results                |
|---------------------|--|----------------------|------------------------|
| Autoclave           | Ta =121°C RH=100% 15 psig  | 96 hrs               | 0/252                  |
| TC                  | Ta = -65°C to 150°C  | 1000 cycles          | 0/252                  |
| H3TRB               | Ta = 85°C RH=85%   | 1008 hrs             | 0/252                  |
|                     | Bias = 80% rated V or 100V Max   |                      |                        |
| IOL                 | Ta = 25°C, Delta TJ = 100°C,   | 15000 cycles         | 0/252                  |
|                     | Ton/off = $5 \text{ min.}$   |                      |                        |
| HTRB                | Ta = 90°C 80% Rated Voltage  | 1008 hrs             | 0/252                  |
| HTSL                | Ta = 150°C   | 1008 hrs             | 0/252                  |
| RSH                 | Ta = 260°C, 10 sec dwell   |                      | 0/90                   |
| Solderability       | Steam Aging = 8hrs   | 8 hrs                | 0/45                   |
| HTRB<br>HTSL<br>RSH | Ton/off = 5 min. Ta = 90°C 80% Rated Voltage Ta = 150°C Ta = 260°C, 10 sec dwell | 1008 hrs<br>1008 hrs | 0/252<br>0/252<br>0/90 |

#### 1SMB5919BT3G

| Test:         | Conditions:                    | Interval:    | Results |
|---------------|--------------------------------|--------------|---------|
| Autoclave     | Ta =121°C RH=100% 15 psig      | 96 hrs       | 0/84    |
| TC            | Ta = -65°C to 150°C            | 1000 cycles  | 0/84    |
| H3TRB         | Ta = 85°C RH=85%               | 1008 hrs     | 0/84    |
|               | Bias = 80% rated V or 100V Max |              |         |
| IOL           | Ta = 25°C, Delta TJ = 100°C,   | 15000 cycles | 0/84    |
|               | Ton/off = $5 \text{ min.}$     |              |         |
| HTRB          | Ta = 150°C 80% Rated Voltage   | 1008 hrs     | 0/84    |
| HTSL          | Ta = 150°C                     | 1008 hrs     | 0/84    |
| RSH           | Ta = 260°C, 10 sec dwell       |              | 0/30    |
| Solderability | Steam Aging = 8hrs             | 8 hrs        | 0/15    |

# **ELECTRICAL CHARACTERISTIC SUMMARY:**

No change in electrical performance.

# **CHANGED PART IDENTIFICATION:**

The change will be identified by date code. Units with date code 1449 or later may be assembled with G700LS mold compound.

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# **List of affected General Parts**:

| 1SMB5913BT3G | MBRS260T3H    |
|--------------|---------------|
| 1SMB5914BT3G | MBRS2H100T3G  |
| 1SMB5915BT3G | MBRS3200T3G   |
| 1SMB5916BT3G | MBRS360BT3G   |
| 1SMB5917BT3G | NBRS2H100T3G  |
| 1SMB5918BT3G | NRVBS130T3G   |
| 1SMB5919BT3G | NRVBS2040LT3G |
| MBRS1100T3G  | NRVBS240LT3G  |
| MBRS1100T3H  | NRVBS260T3G   |
| MBRS120T3G   | NRVBS3200T3G  |
| MBRS120T3H   | NRVBS360BT3G  |
| MBRS130LT3G  | NRVBSS24T3G   |
| MBRS130LT3H  | NRVBSS26T3G   |
| MBRS130T3G   | SBRS5641T3G   |
| MBRS130T3H   | SBRS5654T3G   |
| MBRS140T3G   | SBRS81100T3G  |
| MBRS140T3H   | SBRS8120T3G   |
| MBRS1540T3G  | SBRS8130LT3G  |
| MBRS190T3G   | SBRS8140T3G   |
| MBRS190T3H   | SBRS8190T3G   |
| MBRS2040LT3G | SS22T3G       |
| MBRS2040LT3H | SS24T3G       |
| MBRS230LT3G  | SS24T3H       |
| MBRS240LT3G  | SS26T3G       |
| MBRS240LT3H  | SS26T3H       |
| MBRS260T3G   |               |
|              |               |

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