



PRODUCT/PROCESS CHANGE NOTIFICATION

PCN APM-SLI/08/3388
Notification Date 01/30/2008

**Additional TO-220 Assembly&Testing Line in SMIC for
L78xxCV and LM317T Families**

SLI - LINEAR & INTERFACE

Table 1. Change Implementation Schedule


| | |
|--|-------------|
| Forecasted implementation date for change | 17-Apr-2008 |
| Forecasted availability date of samples for customer | 23-Jan-2008 |
| Forecasted date for STMicroelectronics change Qualification Plan results availability | 23-Jan-2008 |
| Estimated date of changed product first shipment | 30-Apr-2008 |

Table 2. Change Identification

| | |
|---|---|
| Product Identification (Product Family/Commercial Product) | L78xxCV and LM317T Families |
| Type of change | Package assembly location change |
| Reason for change | In order to increase capacity |
| Description of the change | A new TO-220 Assembly and Testing line for L78xxCV and LM317T families has been installed in Subcontractor SMIC (Cheng - China) for Voltage Regulators. This new additional line will increase production capacity in order to satisfy our Customers demand. No change in electrical characteristics. POA comparison is here attached. Samples of L7805CV are already available while we should have parts of LM317T by week 8. For the time being, only these two versions are available to qualify the new subcontractor. |
| Product Line(s) and/or Part Number(s) | See attached |
| Description of the Qualification Plan | See attached |
| Change Product Identification | See "GR" as Assy&Testing code |
| Manufacturing Location(s) | |

Table 3. List of Attachments

| | |
|----------------------------|--|
| Customer Part numbers list | |
| Qualification Plan results | |

----- 

| | | |
|--|------------|------------------------------|
| Customer Acknowledgement of Receipt | | PCN APM-SLI/08/3388 |
| Please sign and return to STMicroelectronics Sales Office | | Notification Date 01/30/2008 |
| <input type="checkbox"/> Qualification Plan Denied <input type="checkbox"/> Qualification Plan Approved <input type="checkbox"/> Change Denied <input type="checkbox"/> Change Approved | Name: | |
| | Title: | |
| | Company: | |
| | Date: | |
| | Signature: | |
| Remark | | |

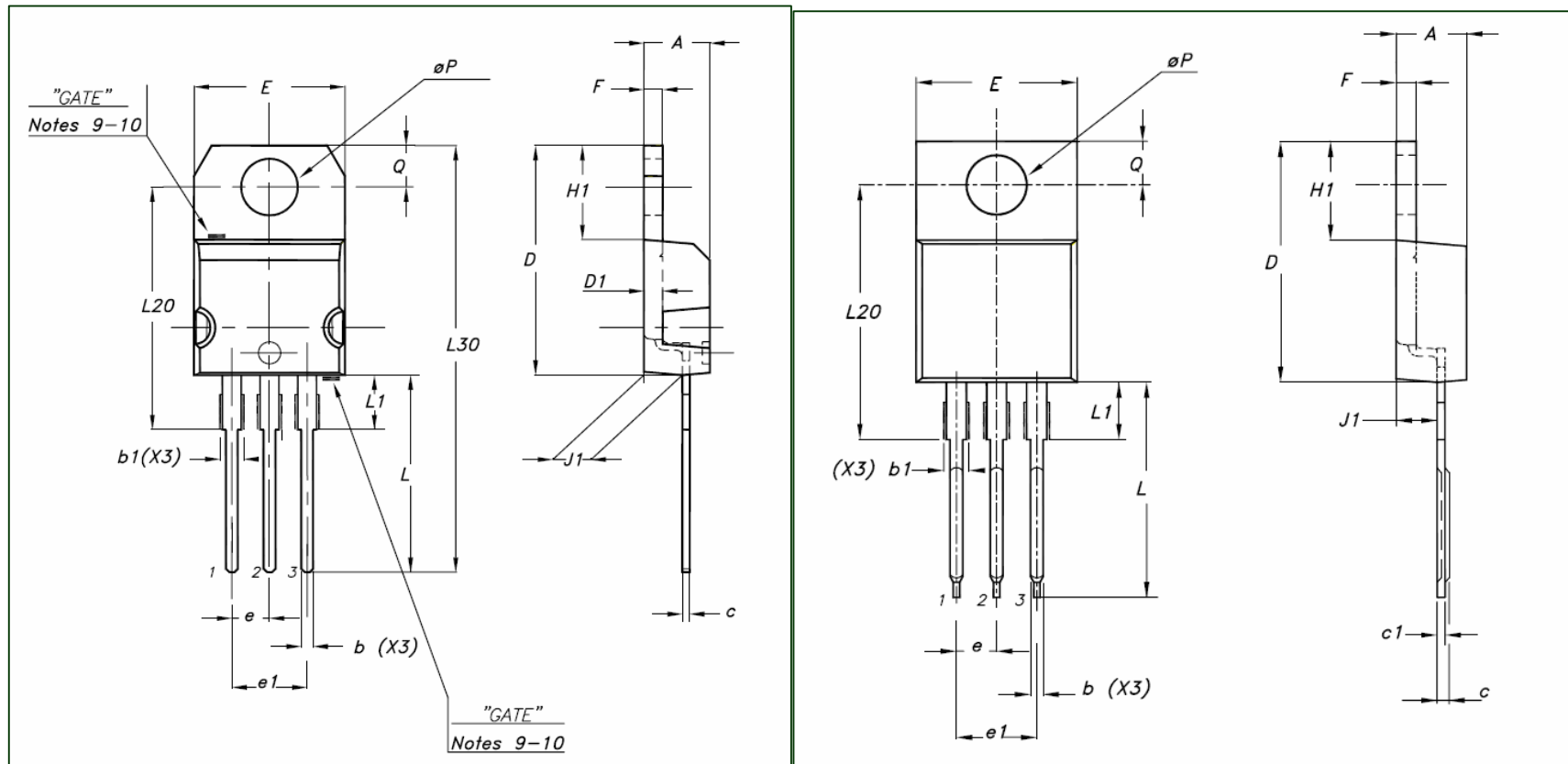
DOCUMENT APPROVAL

| Name | Function |
|----------------------|----------------------------|
| San biagio, Marcello | Division Marketing Manager |
| Naso, Lorenzo | Division Product Manager |
| Lisi, Giuseppe | Division Q.A. Manager |

POA COMPARISON

| Package | TO 220 | | | | | | |
|----------|------------|-------|-------|--------|------------|-------|-------|
| Subcon | ST | | | Subcon | SMIC | | |
| Unit | Millimeter | | | Unit | Millimeter | | |
| Symbol | Min | Nom | Max | Symbol | Min | Nom | Max |
| A | 4.40 | - | 4.60 | | 4.47 | 4.57 | 4.67 |
| b | 0.61 | - | 0.88 | | 0.80 | 0.81 | 0.86 |
| b1 | 1.14 | - | 1.70 | | 1.15 | | 1.44 |
| c | 0.49 | - | 0.70 | | | 0.56 | |
| c1 | | | | | | 0.38 | |
| D | 15.25 | - | 15.75 | | 15.07 | 15.24 | 15.45 |
| D1 | | 1.27 | | | | | |
| E | 10.00 | - | 10.40 | | 10 | 10.15 | 10.30 |
| e | 2.40 | - | 2.70 | | 2.29 | 2.54 | 2.79 |
| e1 | 4.95 | - | 5.15 | | 4.83 | 5.08 | 5.33 |
| F | 1.23 | - | 1.32 | | | 1.27 | |
| H1 | 6.20 | - | 6.60 | | | 6.24 | |
| J1 | 2.40 | - | 2.72 | | 2.04 | 2.67 | 2.92 |
| L | 13.00 | - | 14.00 | | 13.35 | 13.50 | 13.65 |
| L1 | 3.50 | - | 3.93 | | | 3.90 | |
| L20 | | 16.40 | | | 16.25 | 16.40 | 16.55 |
| L30 | | 28.90 | | | | 28.74 | |
| P(diam.) | 3.75 | - | 3.85 | | | 3.83 | |
| Q | 2.65 | - | 2.95 | | 2.72 | 2.74 | 2.80 |

POA COMPARISON



Comment: In spite of some difference in tolerances, the packages are compatible



REL-6043-376.07W

**IMS (Industrial & Multisegment Sector)
APM (Analog, Power, MEMS) Group
Voltage Regulator, Interface, Advanced logic & Power RF
Quality & Reliability**

Reliability Evaluation Plan and final results

on TO220 - Smic subcontractor

Test Vehicle: L7805CV

Line.. LX05

Package. TO220

| Test | Conditions | S.S. | Requirement | Results |
|------------------------------|-------------------------------------|---------------|--|------------------------------------|
| H.T.B. | TA=125°C Vbias= 35V | 77x1 Lot | Parameter deviation within spec. limits | No parameter deviation at 1000h. . |
| H.T.S. | TA=150 °C | 77 x 3 Lot | Parameter deviation within spec. limits | No parameter deviation at 1000h. |
| T.H.B. | TA=85°C - RH=85% Vbias= 24V | 77 x 1 Lot | Parameter deviation within spec. limits | No parameter deviation at 1000h. |
| PRESSURE POT | TA=121°C - PA=2Atm | 77 x 3 Lot | Parameter deviation within spec. limits | No parameter deviation at 168h. |
| THERMAL CYCLES AIR TO AIR | TA=-65°C TO 150°C 1 HOUR / CYCLE | 77 x 3 Lot | Parameter deviation within spec. limits | No parameter deviation at 500 cy |

Comments: The reliability tests results are aligned to our STD production.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners

© 2008 STMicroelectronics - All rights reserved.

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com

