

PCN Number:
Chgnot.doc rev 13 1/14

Product/Process Change Notification (PCN)

Customer: DIGI-KEY CORPORATION

Date: August 2016

Customer Part # and/or Lot# affected:

A1388LLHLT-2-T
A1389LLHLT-9-T
A1389LLHLT-RP9-T

Originator: Laura Donelan

Phone: 603-626-2358

Duration of Change:

Permanent Temporary (explain)

Summary description of change: Part Change: Process Change: Other:

This PCN will detail changes being made to the wafer FAB location and assembly line of the A1388/A1389 device family in efforts to increase security of supply and enhance product quality.

What is the part or process changing from (provide details)?

FAB Transfer:

Allegro currently manufactures the A1388 and A1389 devices on a 8” line at PSL wafer FAB in Bloomington, MN.

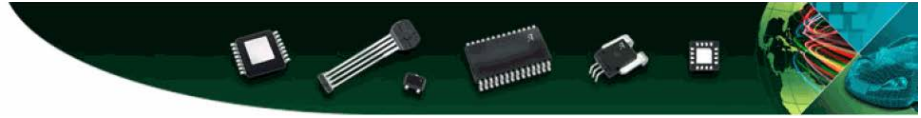
Assembly Line:

The A1388 and A1389 LH package devices are assembled on Allegro’s aging SOT-23W assembly line at our AMPI facility in Manila, Philippines.

What is the part or process changing to (describe the anticipated impact of this change on form, fit and/or function)?

FAB Transfer:

Allegro has transferred the semiconductor wafer fabrication process used to manufacture the A1388 and A1389 integrated circuits (IC’s) to UMC in Taiwan, primarily as a capacity enhancement and security of supply initiative. The fabrication process at UMC uses the same technology and 8” wafer diameter used to manufacture the A1388 and A1389 IC’s at PSL today. This is a technology transfer only to UMC FAB and there is no anticipated impact to fit, form or function of the IC. The schematic diagram and the layout of the A1388 and 1389 IC’s are identical at both PSL and UMC. No design changes were made during the process transfer.



Assembly Line:

We have installed and qualified a new in-house SOT-23W high-density (HD) assembly line at Allegro's AMPI facility in Manila, Philippines. The LH package product(s) referenced in this document will be transitioning from our aging SOT-23W in-house assembly line to the new in-house HD assembly line using modern equipment and the latest assembly techniques. The new SOT-23W equipment is designed to produce products with improved overall quality and lower risk of cracked packages. There is no anticipated impact to fit, form or function of the LH IC(s).

Summary of SOT-23W Changes:

Design:

- Draft angle changed from 10° to 12° nominal
- Addition of 5 mils Radii at corners

BOM:

- Switch to High density leadframe
- Change of Mold compound from E670C to G700FGT

Process Flow:

- Lasermark before PMC
- Trim before plating

Note: Validation of equivalence within a specific application is at the discretion of the Customer.



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Is a PPAP update required?

Yes

No

Is reliability testing required?
(If Yes, refer to attached plan)

Yes

No (explain)

Expected completion date for internal qualification: Qualification is complete.

Expected PPAP availability date: Available upon request

Target implementation date: August 2017

Estimated date of first shipment: August 2017

Expected sample availability date: September 2016

Customer Approval Required: Yes

No Notification Only

Please note: It is our intention to inform our customer of changes as early as possible. Under Allegro's procedure for product/process change notification, Allegro strives, based on its technical judgment, to provide notification of significant changes that may affect form, fit or function. However, as Allegro cannot ensure evaluation of product/process changes for each and every application; the customer retains responsibility to validate the impact of a change on its application suitability. If samples are needed for validation of a change, requests may be made via the contact information provided herein. Please contact your Account Manager or local Sales contact for any questions. We would kindly request your consideration so we can meet our target date for implementation. Unless both parties agree to extend the implementation date, this change will be implemented as scheduled.

Customer comments/Conditions of Acceptance:

Approved by:
cc: Allegro Sales/Marketing/Quality

Date:

Title: