



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

15-JAN-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13287

TITLE: Qualification of Renesas Semiconductor for 14/16 Lead PDIP Package for Selected MC14XXXBCP and MC74HC/HCTXXXAN Products

EFFECTIVE DATE: 15-Mar-2004

AFFECTED CHANGE CATEGORY:

Subcontractor Assembly/Test Site
Assembly Process

AFFECTED PRODUCT DIVISION: Logic Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Ken Fergus <RRST50@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Ibrahim Akb Maiden <FFN3DP@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Won Kang <FFP6RB@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is the Final PCN to notify customers that the changes described in Initial PCN# 12961, located at www.onsemi.com, have been completed for the MC74HCT14AN, MC74HC589AN, MC14017BCP, MC14018BCP, MC14022BCP products. ON Semiconductor is pleased to announce that it has successfully completed the assembly and test qualification of the Renesas Semiconductor facility located in Kedah, Malaysia as an additional source for PDIP 14/16 packages. Renesas is a fully certified QS9000, ISO9002, and ISO014001 supplier. There will be no changes in the wafer/die source, therefore product functionality will be identical. Product parameters will continue to meet all Data Book specifications, and reliability will continue to meet or exceed ON Semiconductor standards. This change is classified as a capacity expansion since the devices listed below may be packaged and tested at either Renesas or the existing AIT qualified site once the final PCN expires.

This is the Final PCN only for the MC74HCT14AN, MC74HC589AN, MC14017BCP, MC14018BCP, MC14022BCP products. Additional notifications will be issued separately for subsequent products when they have completed all qualification testing.

**Final Product/Process Change Notification #13287****RELIABILITY DATA SUMMARY:****Reliability Test Results:****14 ld Pdip MC14066BCP, 3 assembly lots:**

Test	Conditions	Results (#fail/total SS)
High Temp Op Life	TA=145C for 504 hrs	0/240
High Temp Bake	150C for 1008 hrs	0/240
Temp Cycle	-65/+150C for 1000 cyc	0/240
Autoclave	121C/100%RH/15psig for 96hrs	0/240
HAST	131C/80%RH for 96 hrs	0/240
Solder Heat	260C 10 seconds	0/30
Physical Dim.	Case Outline	0/30
Wire Pull	Per Factory	0/90, Cpk >1.33
Ball Shear	Per Factory	0/30, Cpk >1.33
Die Shear	Per Factory	0/30, Cpk >1.33
Solderability	Per Jedec	0/45

16 ld Pdip MC74HC595AN, 3 assembly lots:

Test	Conditions	Results (#fail/total SS)
High Temp Op Life	TA=145C for 504 hrs	0/240
High Temp Bake	150C for 1008 hrs	0/240
Temp Cycle	-65/+150C for 1000 cyc	0/240
Autoclave	121C/100%RH/15psig for 96hrs	0/240
HAST	131C/80%RH for 96 hrs	0/240
Solder Heat	260C 10 seconds	0/30
Physical Dim.	Case Outline	0/30
Wire Pull	Per Factory	0/90, Cpk >1.33
Ball Shear	Per Factory	0/30, Cpk >1.33
Die Shear	Per Factory	0/30, Cpk >1.33
Solderability	Per Jedec	0/45

ELECTRICAL CHARACTERISTIC SUMMARY:

Test correlation summary is available upon request.

CHANGED PART IDENTIFICATION:

Location code is R8.

Date code is WW02'04

AFFECTED DEVICE LIST (WITHOUT SPECIALS)**PART**

MC14017BCP

MC14018BCP

MC14022BCP

MC74HC589AN

MC74HCT14AN