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PRODUCT/PROCESS CHANGE NOTIFICATION  
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29-SEP-2000

**SUBJECT:** Product/Process Change Notification 10274

**TITLE:** SBN-1 QUALIFICATION FOR LOGIC SC88A

**EFFECTIVE DATE:** 08-Jan-2001

**AFFECTED CHANGE CATEGORY(S):**

ON SEMICONDUCTOR ASSEMBLY SITE  
ON SEMICONDUCTOR TEST SITE

**AFFECTED PRODUCT DIVISION(S):**

LOGIC PRODUCTS DIV

**ADDITIONAL RELIABILITY DATA:** Available  
Contact your local ON Semiconductor Sales Office.  
(LYLE STEWART, RJJ930@onsemi.com)

**SAMPLES:** Contact Below  
Contact your local ON Semiconductor Sales Office.  
(DIANNE VON BORSTEL, RPDR20@onsemi.com)

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:  
Contact Sales Office (TOM BRUNER, RPP920@onsemi.com)

**DISCLAIMER:**

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:**

ON Semiconductor has qualified the Seremban Malaysia Site-1 as an additional assembly and test site for the SC88A/SOT-353/SC70 package to provide additional capacity in service of our customers' increasing demand for One-Gate Logic products. Seremban Malaysia Site-1, is a fully qualified, QS9000 certified facility and has been manufacturing micro-packages for ON Semiconductor for many years.

There will be no change in electrical performance with product from the new packaging facility. Final electrical test in SBN-1 will be performed using the standard Logic IC test platform, a PFT test system, used for all other Logic products. The current manufacturing site, SMP, will continue to assemble and test One-Gate product.



The package outline dimensions are also being modified to better reflect the EIAJ and JEDEC standards.

**The changes are:**

**Dimension S:** lead tip to lead tip; was 2.2mm max(0.087inches), new 2.4mm max(0.095inches)

**Dimension V:** center of end lead to end of plastic body; this is not an EIAJ or JEDEC requirement, Dimension V will be eliminated.

**Mold Compound:** changed to Nitto MP8000 AN for SBN1 vs. Plaskon 3400 for SMP.

**Leadframe:** lead finish and wire are not changed

**Sample availability date:** 01-Nov-2000

**QUALIFICATION PLAN:**

See Reliability test results.

**RELIABILITY DATA SUMMARY:**

Reliability Test Results: MC74HC1G00DF, Package=SC88A

<u>TEST</u>	<u>CONDITIONS</u>	<u>INTERVAL</u>	<u>SS</u>	<u>REJ</u>
HTOL	Ta=145C, Vcc=5V	1008 Hrs	3x80	0
HAST	Ta=130C, P=18.8PSIG, RH=85%, Vcc=5V	96 Hrs	3x80	0
A/clave	Ta=121C, P=15PSIG, RH=100%	96 Hrs	3x80	0
T/Cycle	-65 to 150C, Td >15 min	500 Cyc	3x80	0
MSL1	Pre-cond + Autoclave	96 Hrs	3x80	0
MSL1	Pre-cond + Temp cycle	1000 Cyc	3x80	0

**ELECTRICAL CHARACTERISTIC SUMMARY:**

No change in electrical performance.

**CHANGED PART IDENTIFICATION:**

There will be no change in the Device type marking. SBN1 date code marking has same orientation as the Device marking. SMP product has date code marking turned 90 degrees or perpendicular to the Device marking.



**AFFECTED DEVICE LIST:**

**PART**

- MC74HC1G00DFT1
- MC74HC1G00DFT2
- MC74HC1G02DFT1
- MC74HC1G02DFT2
- MC74HC1G04DFT1
- MC74HC1G04DFT2
- MC74HC1G08DFT1
- MC74HC1G08DFT2
- MC74HC1G14DFT1
- MC74HC1G14DFT2
- MC74HC1G32DFT1
- MC74HC1G32DFT2
- MC74HC1GU04DFT1
- MC74HC1GU04DFT2
- MC74VHC1G00DFT1
- MC74VHC1G00DFT2
- MC74VHC1G00DFT4
- MC74VHC1G00DTT1
- MC74VHC1G00DTT3
- MC74VHC1G01DFT1
- MC74VHC1G01DFT2
- MC74VHC1G01DFT4
- MC74VHC1G01DTT1
- MC74VHC1G01DTT3
- MC74VHC1G02DFT1
- MC74VHC1G02DFT2
- MC74VHC1G02DFT4
- MC74VHC1G02DTT1
- MC74VHC1G02DTT3
- MC74VHC1G03DFT1
- MC74VHC1G03DFT2
- MC74VHC1G03DFT4
- MC74VHC1G03DTT1
- MC74VHC1G03DTT3
- MC74VHC1G04DFT1
- MC74VHC1G04DFT2
- MC74VHC1G05DFT1
- MC74VHC1G07DFT1
- MC74VHC1G08DFT1
- MC74VHC1G08DFT2
- MC74VHC1G08DFT4
- MC74VHC1G08DTT1
- MC74VHC1G08DTT3
- MC74VHC1G09DFT1
- MC74VHC1G09DFT2
- MC74VHC1G09DFT4
- MC74VHC1G09DTT1
- MC74VHC1G09DTT3
- MC74VHC1G125DFT1
- MC74VHC1G125DFT2
- MC74VHC1G126DFT1
- MC74VHC1G126DFT2
- MC74VHC1G132DFT1
- MC74VHC1G132DFT2
- MC74VHC1G135DFT1
- MC74VHC1G135DFT2
- MC74VHC1G14DFT1
- MC74VHC1G14DFT2
- MC74VHC1G14DFT4
- MC74VHC1G14DTT1
- MC74VHC1G14DTT3



**AFFECTED DEVICE LIST:**

**PART**

MC74VHC1G32DFT1  
MC74VHC1G32DFT2  
MC74VHC1G32DFT4  
MC74VHC1G32DTT1  
MC74VHC1G32DTT3  
MC74VHC1G50DFT1  
MC74VHC1G66DFR2  
MC74VHC1G66DFT1  
MC74VHC1G66DFT2  
MC74VHC1G66DFT4  
MC74VHC1G66DTT1  
MC74VHC1G66DTT3  
MC74VHC1G86DFT1  
MC74VHC1G86DFT2  
MC74VHC1GT00DFT1  
MC74VHC1GT00DFT2  
MC74VHC1GT02DFT1  
MC74VHC1GT02DFT2  
MC74VHC1GT02DFT4  
MC74VHC1GT02DTT1  
MC74VHC1GT02DTT3  
MC74VHC1GT04DFT1  
MC74VHC1GT04DFT2  
MC74VHC1GT04DFT4  
MC74VHC1GT04DTT1  
MC74VHC1GT04DTT3  
MC74VHC1GT125DFT  
MC74VHC1GT126DFT  
MC74VHC1GT14DFT1  
MC74VHC1GT14DFT2  
MC74VHC1GT50DFT1  
MC74VHC1GT50DFT2  
MC74VHC1GT66DFR2  
MC74VHC1GT66DFT1  
MC74VHC1GT66DFT2  
MC74VHC1GT86DFT1  
MC74VHC1GT86DFT2  
MC74VHC1GU04DFT1  
MC74VHC1GU04DFT2