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**INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION**  
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**30-JAN-2002**

**SUBJECT: ON Semiconductor Initial Product/Process Change Notification #12267**

**TITLE: Qualification of Subcontractor for Thyristor Wafer Fabrication**

**EFFECTIVE DATE: 30-May-2002**

**AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site**

**AFFECTED PRODUCT DIVISION: Bipolar Discretes Products Div**

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or Laura Rivers <S20636@onsemi.com>

**SAMPLES:** Contact your local ON Semiconductor Sales Office  
or Barbara Matteson <RM2230@onsemi.com>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact Sales Office or Shahin Badiie <RA5032@onsemi.com>

**DISCLAIMER:**

Initial Product/Process Change Notification (IPCN) -First Notification distributed to customers.  
Distributed at least 120 days from the effective date of the change.

**DESCRIPTION AND PURPOSE:**

ON Semiconductor is pleased to announce the qualification of Lite-On's Keelung, Taiwan wafer fabrication facility to be used for the wafer fabrication of ON Semiconductor's Thyristor product line.

Lite-On has been a subcontractor to ON Semiconductor Inc. during the past 10 years and is certified to QS-9000, ISO-9001, and ISO-14000.

To minimize any impact to our customers, ON Semiconductor's equipment and processes documentation will be transferred to Lite-On, while Lite-On engineers and operators will be trained by ON Semiconductor engineers in order to duplicate the existing process. There will be no change to the form, fit and function of the devices. Device parameters will continue to meet all Data Book specifications, and reliability will continue to meet or exceed ON Semiconductor standards.



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**QUALIFICATION PLAN:**

**Qualification Plan (Per AEC-Q101 guidelines)**

<b>Test</b>	<b>Conditions</b>	<b>Exceptions</b>
HTRB	Vr=80% rated, Ta=150degC , 1000 hrs.	
Temp Cycle	Air to Air, -65 to +150C, 1000 cycles	
Autoclave	Ta=121C, RH= 100%, PSIG=15, 96 hrs.	
H3TRB	Vr=80% rated (100V max), Ta=85C, RH=85%, 1000 hrs.	
IOL	Ta=25 C, delta Tj =>100 C,	SSOVP, SIDAC
D.P.A.	Post H3TRB and Temp Cycle	
Res. To	260 C, Td=10s	
Solder Heat		
Electrical	Tri-Temperatures (Including surge)	
Characterization		
ESD	MM, HBM	
Wire Pull	If applicable	
Wirebond Shear	If applicable	
Die Push-Off	If applicable	

**Qualification Vehicle Justification**

<b>Family</b>	<b>Package</b>	<b>Qual Device</b>	<b># of Lots</b>	<b>Reason Chosen</b>
Triac	TO220 Wire Bond	MAC15N	2	Largest Die/Highest Voltage
SCR	TO220 Wire Bond	MCR15N	1	Largest Die/Highest Voltage
TRIAC	TO-92	MAC97A8	2	Largest Die/Highest Voltage
SCR	TO-92	MCR100-8	1	Largest Die/Highest Voltage
TRIAC	TO220 Clip	MAC212A10	3	Largest Die/Highest Voltage
SSOVP	SMB	MMT10B310T3	3	Largest Die/Highest Voltage
SIDAC	3A Axial-Lead	MKP3V240	3	Largest Die/Highest Voltage

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

**PART**

2N5060, 2N5060RL1, 2N5060RLRA, 2N5060RLRM, 2N5061, 2N5061RLRA, 2N5062, 2N5062RLRA, 2N5064, 2N5064RLRA, 2N5064RLRM, 2N6070A, 2N6071A, 2N6071B, 2N6071BT, 2N6073A, 2N6073B, 2N6075, 2N6075A, 2N6075B, 2N6240, 2N6344, 2N6344A, 2N6348A, 2N6349, 2N6349A, 2N6394, 2N6395, 2N6397, 2N6397T, 2N6399, 2N6400, 2N6401, 2N6402, 2N6403, 2N6404, 2N6405, 2N6504, 2N6505, 2N6505T, 2N6507, 2N6507T, 2N6508, 2N6508T, 2N6509, 2N6509T, C106B, C106D, C106D1, C106M, C106M1, C106M1T, C122B1, C122F1, C122F1T, LMAC94A4, MAC08BT1, MAC08MT1, MAC12D, MAC12HCD, MAC12HCM, MAC12HCN, MAC12M, MAC12N, MAC12SM, MAC12SN, MAC15-008, MAC15-010, MAC15A10, MAC15A6, MAC15A8, MAC15M, MAC15N, MAC15SD, MAC15SM, MAC15SN, MAC16CD, MAC16CM, MAC16CN, MAC16D, MAC16HCD, MAC16HCM, MAC16HCN, MAC16M, MAC16N, MAC210A10, MAC210A8, MAC212A10, MAC212A8, MAC218A8, MAC228A10, MAC228A4, MAC228A6, MAC228A8, MAC3030-008,

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MAC4DCM-001, MAC4DCMT4, MAC4DCN-001, MAC4DCNT4, MAC4DHM-001, MAC4DHMT4, MAC4DLM-001, MAC4DLMT4, MAC4DSM-001, MAC4DSMT4, MAC4DSN-001, MAC4DSNT4, MAC4M, MAC4N, MAC4SM, MAC4SN, MAC8D, MAC8M, MAC8N, MAC8SD, MAC8SM, MAC8SN, MAC97-008, MAC97A-8RLRM, MAC97A-8RLRP, MAC97A4, MAC97A6, MAC97A6RL1, MAC97A6RLRF, MAC97A6RLRP, MAC97A8, MAC97A8RL1, MAC97A8RLRM, MAC97A8RLRP, MAC997A6, MAC997A6RL1, MAC997A6RLRP, MAC997A8, MAC997A8RL1, MAC997A8RLRP, MAC997B6, MAC997B6RL1, MAC997B6RLRP, MAC997B8, MAC997B8RL1, MAC997B8RLRP, MAC9D, MAC9M, MAC9N, MCR08BT1, MCR08MT1, MCR100-003, MCR100-004, MCR100-006, MCR100-008, MCR100-3RL, MCR100-6RL, MCR100-6RLRA, MCR100-6RLRM, MCR100-6ZL1, MCR100-8RL, MCR106-006, MCR106-008, MCR12D, MCR12DCMT4, MCR12DCN-001, MCR12DCNT4, MCR12DSMT4, MCR12DSN-001, MCR12DSNT4, MCR12LD, MCR12LM, MCR12LN, MCR12M, MCR12N, MCR16N, MCR218-002, MCR218-004, MCR218-006, MCR218-6T, MCR22-006, MCR22-008, MCR22-2RL1, MCR22-6RLRA, MCR22-6RLRP, MCR22-8RL1, MCR22-8ZL1, MCR25D, MCR25M, MCR25N, MCR310-010, MCR506-002, MCR68-002, MCR69-002, MCR69-003, MCR703ARL, MCR703AT4, MCR704ARL, MCR704AT4, MCR706ARL, MCR706AT4, MCR708A, MCR708A1, MCR708AT4, MCR716T4, MCR718RL, MCR718T4, MCR72-003, MCR72-006, MCR72-008, MCR72-6T, MCR72-8T, MCR8DCMT4, MCR8DCNT4, MCR8DSMT4, MCR8DSNT4, MCR8N, MCR8SD, MCR8SM, MCR8SN, MCRC16MWP, MKP1V120RL, MKP1V130RL, MKP1V160, MKP1V160RL, MKP1V240, MKP1V240RL, MKP3V120, MKP3V120RL, MKP3V240, MKP3V240RL, MKP9V160RL, MMT05A230T3, MMT05A260T3, MMT05A310T3, MMT05B230T3, MMT05B260T3, MMT05B310T3, MMT05B64T3, MMT10B230T3, MMT10B260T3, MMT10B310T3, MMT10B350T3, MMT10V260, MMT300V400, NCR169D, NCR169DRLRA, NCR169DRLRM, NCR169DRLRP, SAC847-008, SC141D, SC146D, STC585WP, STC586WP, STC600WP, T2322B, T2500D, T2800D, TPA0233, TPA0234, TPA0239ZL1