ON Semiconductor

INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

28-FEB-2003

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #12755

TITLE: Additional Wafer Capacity for 60V N-CHANNEL TMOS at PHENITEC

EFFECTIVE DATE: 28-Jun-2003

AFFECTED CHANGE CATEGORY: Subcontractor Fab Site

AFFECTED PRODUCT DIVISION: MOS Power Products Div

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Keith Stapley <RXNN90@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office
or Spiro Zeffereys<FFMYGQ@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact Sales Office or Karen Wright <RD9130@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.

This is an 'early warning' about an upcoming change and contains general information regarding the change details and devices affected. It also contains at least a reliability qualification plan, but the actual qualification data will be identified in the Final Product/Process Change Notification (FPCN). This notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days from effective date of change.

DESCRIPTION AND PURPOSE:
This is the initial notification announcing ON Semiconductor is adding wafer fabrication capacity for the 60V, N-Channel TMOS7 MOSFET Technology at Phenitec Semiconductor Corp. located in Okayama, Japan. The Phenitec facility has been producing Power MOSFET products for ON Semiconductor since 1999 and is a preferred supplier. Several existing technologies within ON Semiconductor's Power MOSFET portfolio are sourced from Phenitec, including lower voltage TMOS7 products. Final PCNs will be issued in two phases, Q2 2003, and Q3 2003, as device characterization data is completed.

Electrical performance and datasheet specifications will not change.

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QUALIFICATION PLAN:
High Temperature Reverse Bias:
Ta=150DegC, Vgs=0V, Vds=80%Vdss rating, Duration=1008Hrs, 3 Lots, 80pcs/Lot

High Temperature Gate Bias:
Ta=150DegC, Vgs= 100%Vgss rating, Vds=0V, Duration=1008Hrs, 3 Lots, 80pcs/Lot

Intermittent Operating Life:
Ton= Toff= 2 minutes, delta Tj= 100DegC, Duration= 15000Cy, 3Lots,80pcs/Lot

Temperature Cycling:
Temperature extremes= =150DegC/-65DegC, Dwell time= 15 minutes,
Duration = 1000Cy, 3 Lots, 80pcs/Lot

Autoclave Testing:
Temperature= 121DegC, Relative Humidity= 100%, Pressure= 15psi,
Duration= 96Hrs, 3 Lots, 80pcs/Lot

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART
NTB13N10
NTB13N10T4
NTB18N06
NTB18N06L
NTB18N06LT4
NTB18N06LT4G
NTB18N06T4
NTB22N06
NTB22N06L
NTB22N06LT4
NTB22N06T4
NTB27N06L
NTB27N06LT4
NTB30N06L
NTB30N06LT4
NTB30N20
NTB30N20T4
NTB35N15
NTB35N15T4
NTB45N06L
NTB45N06LT4
NTB52N10
NTB52N10T4
NTC18N06
NTC18N06TR
NTC18N06WP
NTC3055L104
NTC3055L104TR
NTC3055L104WP
NTD12N10
NTD12N10-001
NTD12N10T4

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NTD15N06
NTD15N06-001
NTD15N06L
NTD15N06L-001
NTD15N06LT4
NTD15N06T4
NTD18N06
NTD18N06-001
NTD18N06L
NTD18N06L-001
NTD18N06LT4
NTD18N06T4
NTD20N06L
NTD20N06L-001
NTD20N06LT4
NTD24N06L
NTD24N06L-001
NTD24N06LT4
NTD3055-094
NTD3055-094-1
NTD3055-094T4
NTD3055L104
NTD3055L104-001
NTD3055L104T4
NTD3055L170
NTD3055L170-001
NTD3055L170T4
NTD32N06L
NTD32N06L-001
NTD32N06LT4
NTF3055-100T1
NTF3055-100T3
NTF3055-100T3LF
NTF3055L108T1
NTF3055L108T3
NTF3055L108T3LF
NTF3055L175T1
NTF3055L175T3
NTF3055L175T3LF
NTP13N10
NTP18N06
NTP18N06L
NTP22N06
NTP22N06L
NTP27N06L
NTP30N06L
NTP30N20
NTP35N15
NTP45N06L
NTP52N10