



FINAL PRODUCT/PROCESS CHANGE NOTIFICATIONGeneric Copy

26 Feb 2008**SUBJECT: ON Semiconductor Final Product/Process Change Notification #16100****TITLE: Dpak Package Mold Compound Change – Discrete Products****PROPOSED FIRST SHIP DATE: 26 May 2008****AFFECTED CHANGE CATEGORY(S): Assembly Process****AFFECTED PRODUCT DIVISION(S): Discrete Division**

Discrete Products Division

PowerFET Division

Rectifier Division

Automotive Division

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:Contact your local ON Semiconductor Sales Office or Steven Black <s.black@onsemi.com>**SAMPLES:** Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or Donna Scheuch <d.scheuch@onsemi.com>**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 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 a Final Product Change Notice for a Mold Compound change previously announced in IPCN # 16041 issued on 30 August 2007. This FPCN is being issued only for Discrete (IGBTs, MOSFETs, Bipolar Transistors, Rectifier Diodes) products in the Dpak style package. All Qualification and Reliability testing has been completed and has passed all established criteria.

As part of ON Semiconductor's continuous improvement programs, the mold compound for the Dpak package assembled at the ON Semiconductor factory located at Seremban, Malaysia, will be changing. The same supplier of the existing compound will be used but the formulation will be modified for improved reliability in terms of moisture testing and delamination(SAT)performance.

**Final Product/Process Change Notification #16100****RELIABILITY DATA SUMMARY:**

Reliability Test Results:

MCR12DCNT4G (Thyristor) – 3 separate assembly lots

Test: High Temperature Reverse Bias (HTRB)

Conditions: Ta=80°C, 1008-Hrs

Results: 0/252

Test: Temperature Cycling (TC-PC)

Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, 1000-cycles

Results: 0/252

Reliability Test Results:

NTD110N02RT4G (Power MOSFET) – 3 separate assembly lots

Test: High Temperature Storage Life (HTSL)

Conditions: Ta=150°C, 1008-Hrs

Results: 0/252

Test: Temperature Cycling (TC-PC)

Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, 1000-cycles

Results: 0/252

Test: Highly Accelerated Stress Test (HAST)

Conditions: Vds=20V, Ta=131°C, RH=85%, P=18.8psig, 96-Hrs

Results: 0/252

Test: Autoclave Test (AC-PC)

Conditions: Ta=121°C, P=15psi, RH=100%, 96-Hrs

Results: 0/252

Tests: Solderability (SnCuAg)

Conditions: Ta= 260°C,

Results: 0/30

Test: Resistance to Solder Heat

Conditions: Ta= 260°C, Immersion

Results: 0/135

ELECTRICAL CHARACTERISTIC SUMMARY:

No changes in electrical parameter distributions. This change will not result in any change to data sheet limits nor device performance. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:

Parts with the new mold compound can be identified by assembly lot date codes. Change will not occur prior to work week – 20, 2008.

**Final Product/Process Change Notification #16100****AFFECTED DEVICE LIST**

BUD42D-1G
BUD42DG
BUD42DT4G
MAC4DCM-001
MAC4DCM-1G
MAC4DCMT4
MAC4DCMT4G
MAC4DCN-001
MAC4DCN-1G
MAC4DCNT4
MAC4DCNT4G
MAC4DHM-001
MAC4DHM-1G
MAC4DHMT4
MAC4DHMT4G
MAC4DLM-1G
MAC4DLMT4
MAC4DLMT4G
MAC4DSM-001
MAC4DSM-1G
MAC4DSMT4G
MAC4DSN-1G
MAC4DSNT4G
MBRD1035CTLG
MBRD1035CTLT4
MBRD1035CTLT4G
MBRD1045T4G
MBRD320G
MBRD320RLG
MBRD320T4
MBRD320T4G
MBRD330G
MBRD330RLG
MBRD330T4G
MBRD340G
MBRD340RLG
MBRD340T4
MBRD340T4G
MBRD350G
MBRD350RLG
MBRD350T4
MBRD350T4G
MBRD360G
MBRD360RLG
MBRD360T4
MBRD360T4G
MBRD5H100T4G
MBRD620CTT4G
MBRD630CTT4G
MBRD640CT
MBRD640CTG
MBRD640CTT4
MBRD640CTT4G



MBRD650CT1
MBRD650CTG
MBRD650CTT4G
MBRD660CTG
MBRD660CTRLG
MBRD660CTT4
MBRD660CTT4G
MBRD835LG
MBRD835LT4
MBRD835LT4G
MCR12DCMT4
MCR12DCMT4G
MCR12DCNT4
MCR12DCNT4G
MCR12DSMT4
MCR12DSMT4G
MCR12DSN-001
MCR12DSN-1G
MCR12DSNT4
MCR12DSNT4G
MCR703AT4
MCR703AT4G
MCR706AT4
MCR706AT4G
MCR708A
MCR708A1
MCR708A1G
MCR708AG
MCR708AT4
MCR708AT4G
MCR716T4
MCR716T4G
MCR718T4
MCR718T4G
MCR8DCMT4
MCR8DCMT4G
MCR8DCNT4
MCR8DCNT4G
MCR8DSMT4
MCR8DSMT4G
MCR8DSNT4
MCR8DSNT4G
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MJD112-1G
MJD112G
MJD112RLG
MJD112T4
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MJD117-1G
MJD117G
MJD117RLG
MJD117T4
MJD117T4G
MJD122
MJD122G
MJD122T4
MJD122T4G
MJD127



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MJD127T4
MJD127T4G
MJD128T4G
MJD148T4
MJD148T4G
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MJD18002D2T4G
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MJD200RL
MJD200RLG
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MJD210RLG
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MJD41CRLG



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MJD42CG
MJD42CRLG
MJD42CT4
MJD42CT4G
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MJD44E3T4G
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MJD44H11G
MJD44H11RL
MJD44H11RLG
MJD44H11T4
MJD44H11T4G
MJD44H11T5G
MJD45H11
MJD45H11-1G
MJD45H11G
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MURD320T4G
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MURD330T4G
MURD340T4G
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MURD620CTT4
MURD620CTT4G
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NBRD5H100T4G



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NID5001NT4G
NID5003NT4
NID5003NT4G
NID5004NT4G
NID6002NT4G
NID9N05CLT4
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NJD2873T4G
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NJVMJD42CT4
NRVBD640CT
NRVBD640CTG
NRVBD640CTT4
NRVBD640CTT4G
NRVBD660CT
NRVBD660CTG
NRVBD660CTT4
NRVBD660CTT4G
NRVUD620CTT4
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NTD110N02RG
NTD110N02RT4G
NTD12N10-1G
NTD12N10G
NTD12N10T4
NTD12N10T4G
NTD14N03RT4G
NTD18N06L-1G
NTD18N06LG
NTD18N06LT4
NTD18N06LT4G
NTD18N06T4
NTD18N06T4G
NTD20N03L27
NTD20N03L27-1G
NTD20N03L27G
NTD20N03L27T4
NTD20N03L27T4G
NTD20N06G
NTD20N06L-001
NTD20N06L-1G
NTD20N06LG
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NTD24N06LT4
NTD24N06LT4G
NTD24N06T4G
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SA317MDTRKG
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SC79184DTRK
SC901000DTRK
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