ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN21627X

Issue Date: 25 January 2017

Title of Change:	Qualification of G700 mold compound for select DPAK packaged products in ON Semiconductor Vietnam (OSV).
Proposed first ship date:	2 May 2017 *or earlier upon customer approval*
Contact information:	Contact your local ON Semiconductor Sales Office or <Trung.Dang@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <cheanching.sim@onsemi.com>
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change Part Identification:	New products will be packed as standard MSL1 packaging with no silver cover.
Change category:	☐ Wafer Fab Change ☒ Assembly Change ☐ Test Change ☐ Other ______________

Change Sub-Category(s):

☐ Manufacturing Site Change/Addition
☐ Manufacturing Process Change
☒ Material Change
☐ Product specific change
☐ Datasheet/Product Doc change
☒ Shipping/Packaging/Marking
☐ Other: ______________________

Sites Affected:

☐ All site(s)
☐ not applicable
☒ ON Semiconductor site(s) : ON Dong Nai Province, Vietnam
☐ External Foundry/Subcon site(s)

Description and Purpose:

This is a Final Product Change Notification to announce the qualification of the G700 mold compound on selected devices in DPAK package. This change will improve product robustness and now meets MSL1 requirement. Upon the expiration of this FPCN, these DPAK products will be packaged to the MSL1 packaging requirement.

Materials to be change	Before Change	After Change
Mold Compound	EMC-GE8000xx	EMC-G700xx
Packaging	Dry packing	Standard packing

Reliability Data Summary:

QV DEVICE NAME: NDD03N80ZT4G(MOSFET)
PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 80% of rated V	504 hrs	0/252
HTGB	JESD22-A108	Ta = 150 °C, 100% max rated Vgss	504 hrs	0/252
HTSL	JESD22-A103	Ta = 150 °C	504 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	7500 cyc	0/252
TC	JESD22-A104	Temp = -55°C to +150°C	500 cyc	0/252
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/252
H3TRB	JESD22-A101	Temp = 85°C, RH=85%, bias = 100V max	504 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

Electrical Characteristic Summary:
Electrical characteristics are not impacted.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
NDD03N80ZT4G	NDD03N80ZT4G
NDD60N360U1-35G	NDD03N80ZT4G
NDD60N360U1T4G	NDD03N80ZT4G
NDD60N550U1-35G	NDD03N80ZT4G
NDD60N550U1T4G	NDD03N80ZT4G
NDD60N745U1-35G	NDD03N80ZT4G
NDD60N745U1T4G	NDD03N80ZT4G
NDD60N900U1-35G	NDD03N80ZT4G
NDD60N900U1T4G	NDD03N80ZT4G