ON Semiconductor



Title of Change:	0W635-004-XTP base substrate and MSL/max reflow temperature change				
Proposed first ship date:	5 March 2017				
Contact information:	Contact your local ON Semiconductor Sales Office or <christophe.waelchli@onsemi.com></christophe.waelchli@onsemi.com>				
Samples:	Samples will be available after completion of qualification. Contact your local ON Semiconductor Sales Office.				
Type of notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <pcn.support@onsemi.com>.</pcn.support@onsemi.com>				
Change Part Identification:	Base substrate will be green (currently, base substrate is white)				
Change category:	□ Wafer Fab Change				
Change Sub-Category(s): Manufacturing Site Change/ Manufacturing Process Char 		 Datasheet/Product Doc change Shipping/Packaging/Marking Other: 			
Sites Affected: All site(s)	oplicable ON Semiconductor site(s) : ON Burlington, Canada	External Foundry/Subcon site(s)			
Description and Purpose: 0W635-004-XTP base substrate ch	nange and MSL/maximum reflow temperature ch	ange as detailed in the table below:			
	Before Change	After Change			
	Description	Description			
Base substrate	96% Al ₂ 0 ₃ (white)	BT resin based laminate (green)			
MSL / max reflow	MSL5 / 240°C	MSL3 / 260°C			



Qualification Plan:

QV DEVICE NAME: 0W635-004-XTD, E7120-102A59-AG PACKAGE: LGA17 5.97x3.43, SIP59 4.14 x 3.18

Test	Specification	Precondition	Condition	Interval	Results
Moisture Sensitivity Level (SAT)	JSTD-020D	N/A	30C/60%RH 192h 3x reflow 260C	N/A	Pending
Temperature Cycling (TC)	JESD22A-A104	30°C/60%RH 192 hours 3x reflow @ 260°C peak	-55°C, >=10min +125°C, >=10min 10C/min ramp 100 cycles Air to air	N/A	Pending
HTS	JEDEC-A103C	N/A	150°C	288h	Bridged to 0w635-004
ESD (HBM)	JESD22-A114	N/A	2kV	N/A	Bridged to 0w635-004
ESD (MM)	JESD22-A115	N/A	200V	N/A	Bridged to 0w635-004
Latch-up	JESD76	N/A	100mA	N/A	Bridged to 0w635-004
Light sensitivity	Custom	N/A	1000W	N/A	Bridged to 0w635-004
HAST	JEDEC-A110D	N/A	130°C / 85%RH 1.3V/ 2V bias	96h	Bridged to E7120
Thermal Shock	JESD22-A106B	30°C/60%RH 192 hrs, 3x reflow @ 260°C	-40°C / +85°C, liquid to liquid 15 cy	N/A	Bridged to E7120
Solderability – Reflow	Custom	30°C/60%RH 192 hrs	3x reflow @ 260°C	N/A	Bridged to E7120
Solderability – point to point	Custom	30°C/60%RH 192 hrs	3x point to point @ 300°C	N/A	Bridged to E7120

Estimated date for qualification completion: 23 November 2016

List of affected Standard Parts:				
Part Number	Qualification Vehicle			
0W635-004-XTP	- 0W635-004-XTD			
0W635-004-XTD				