



Title of Change:	Announcement of several changes to the CPH3105-TL-E product. Addition of passivation with changes to the pad design and top metal. Qualification of copper wire with changes to the lead frame and mold compound.																																			
Proposed first ship date:	19 July 2017																																			
Contact information:	Contact your local ON Semiconductor Sales Office or <Yasunari.Noguchi@onsemi.com>																																			
Samples:	Contact your local ON Semiconductor Sales Office																																			
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Yasuhiro.Igarashi@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:	Affected products will be identified with date code.																																			
Change category:	<input checked="" type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____																																			
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Change/Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input checked="" type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____																																			
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Niigata, Japan ON Shenzhen, China <input type="checkbox"/> External Foundry/Subcon site(s)																																			
Description and Purpose:																																				
This is a Final Process Change Notification to announce the following change.																																				
<table border="1"> <thead> <tr> <th colspan="2">item</th> <th>Before Change</th> <th>After Change</th> <th>Reason</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Die</td> <td>Pattern layout</td> <td>Existing pad design</td> <td>To change the position of bonding pads To add separated probe pads</td> <td>Quality improvement</td> </tr> <tr> <td>Top metal</td> <td>3.2um</td> <td>5.5um</td> <td>For copper wire</td> </tr> <tr> <td>Passivation</td> <td>None</td> <td>SiN+ Polyimide</td> <td>Quality improvement</td> </tr> <tr> <td colspan="2">Wire</td> <td>Gold</td> <td>Copper</td> <td>Stable supply</td> </tr> <tr> <td colspan="2">Mold compound</td> <td>Halide</td> <td>Halide Free</td> <td>Environmental response</td> </tr> <tr> <td colspan="2">Lead frame</td> <td>Large flag Wide post</td> <td>Small flag Narrow post</td> <td>Stable supply Quality improvement</td> </tr> </tbody> </table>				item		Before Change	After Change	Reason	Die	Pattern layout	Existing pad design	To change the position of bonding pads To add separated probe pads	Quality improvement	Top metal	3.2um	5.5um	For copper wire	Passivation	None	SiN+ Polyimide	Quality improvement	Wire		Gold	Copper	Stable supply	Mold compound		Halide	Halide Free	Environmental response	Lead frame		Large flag Wide post	Small flag Narrow post	Stable supply Quality improvement
item		Before Change	After Change	Reason																																
Die	Pattern layout	Existing pad design	To change the position of bonding pads To add separated probe pads	Quality improvement																																
	Top metal	3.2um	5.5um	For copper wire																																
	Passivation	None	SiN+ Polyimide	Quality improvement																																
Wire		Gold	Copper	Stable supply																																
Mold compound		Halide	Halide Free	Environmental response																																
Lead frame		Large flag Wide post	Small flag Narrow post	Stable supply Quality improvement																																



Reliability Data Summary:

QV DEVICE NAME: CPH3105-TL-E

PACKAGE: CPH3

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
AC	JSTD020 JESD-A102	Tj=121°C, RH=100%, Pressure=15psig	96 hrs	0/231

PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90

Electrical Characteristic Summary:

There is no change in the electrical performance. Datasheet specifications remain unchanged.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
CPH3105-TL-E	CPH3105-TL-E