ON Semiconductor®

Final Product/Process Change Notification

Document #:FPCN22897X
Issue Date:21 Apr 2021

Title of Change:	Conversion from existing PQFN8x8 Sawn-type package to PQFN8x8 Punch-type package (w/ 2mils Bare Cu wire, Large DC clip and wettable flank feature)
Proposed First Ship date:	28 Jul 2021 or earlier if approved by customer
Contact Information:	Contact your local ON Semiconductor Sales Office or RamilAngelo.Nonato@onsemi.com
PCN Samples Contact:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com>. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or Aileen.Allado@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
Marking of Parts/ Traceability of Change:	Lots can be differentiated by Package Type and Date code
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Process Change

Sites Affected:

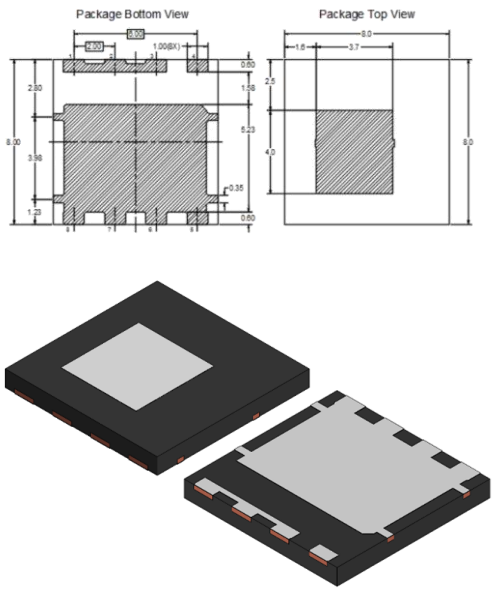
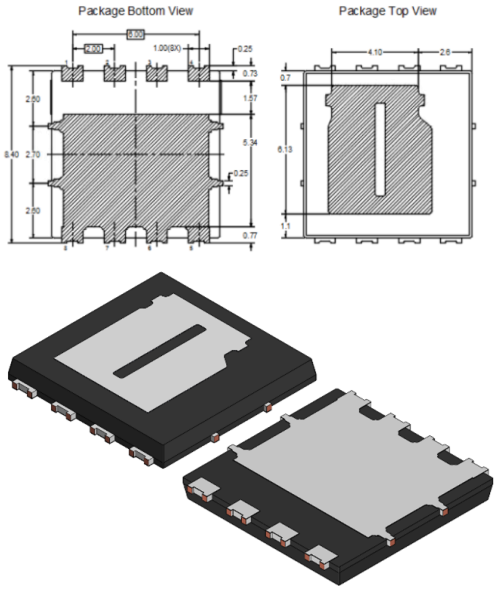
ON Semiconductor Sites	**External Foundry/Subcon Sites**
ON Semiconductor Cebu, Philippines	None

Description and Purpose:

This Project is to convert the impacted PQFN 8x8 parts from Sawn package to Punch Package. Please see below change table for details.

	Before Change Description	**After Change Description**
LeadFrame	Etched Type	Stamped Clip
Bond Wire	1.0mils PCC/ Cu Clip 10mils with Cu Heatslug 10mils	2mils Cu wire/ 1pc Cu Clip 20mils
Mold Compound	Hitachi CEL9240HF10LS	Sumitomo G700LTD SF
Package Type	Sawn	Punch

3D Model Comparison

	Before Change Description	After Change Description
Package Apparence	 Package thickness : 0.85mm nominal	 Package thickness : 0.92mm nominal

Reliability Data Summary:

QV DEVICE NAME: FDMT800150DC
RMS: F66058
PACKAGE: PQFN-8

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	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	15,000 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	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30

QV DEVICE NAME: NVMTSC1D3N08M7TXG
RMS: F51455
PACKAGE: PQFN-8

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	2016 hrs	0/231
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	2016 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30,000 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	192 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30

Electrical Characteristics Summary:

The temperature characterization and ESD performance meet datasheet specification. Detail of Electrical characterization result is available upon request.

List of Affected Parts:

Note: *Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the* ***PCN Customized Portal****.*

Part Number	Qualification Vehicle
FDMT800150DC	FDMT800150DC
FDMT800120DC	FDMT800150DC
FDMT800100DC	FDMT800150DC
FDMT80060DC	NVMTSC1D3N08M7TXG
FDMT80040DC	NVMTSC1D3N08M7TXG