



Title of Change:	Capacity Expansion of Assembly and Test operations of ON Suzhou for D2PAK package to ON Seremban, Malaysia.
Proposed first ship date:	31 December 2019
Contact information:	Contact your local ON Semiconductor Sales Office or < SitiNurhaza.MohdRamli@onsemi.com >
Samples:	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 < MohdHairwan.MdNor@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 by Marking code.
Change Category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____

Change Sub-Category(s):

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Manufacturing Site Addition | <input checked="" type="checkbox"/> Material Change | <input type="checkbox"/> Datasheet/Product Doc change |
| <input type="checkbox"/> Manufacturing Site Transfer | <input type="checkbox"/> Product specific change | <input type="checkbox"/> Shipping/Packaging/Marking |
| <input type="checkbox"/> Manufacturing Process Change | <input type="checkbox"/> Other: _____ | |

Sites Affected:

ON Semiconductor Sites:
ON Seremban, Malaysia
ON Suzhou, China

External Foundry/Subcon Sites:
None







Description and Purpose:

This is the final product change notification (FPCN) of IPCN22746X announcing that ON Semiconductor is expanding Assembly and Test Operations of ON Suzhou for D2PAK package to ON Seremban, Malaysia.

No change on existing OPN. There will be two separate BOMs for ON Suzhou, China and ON Seremban, Malaysia.

	Before Change Description	After Change Description	
Assembly Site	ON Suzhou	ON Suzhou	ON Seremban
LeadFrame	TSP	TSP	SDI
Die Attach	PB92.5,SN5AG2.5 PB93.5SN5AG1.5	PB92.5,SN5AG2.5 PB93.5SN5AG1.5	Pb95Sn5
Bond Wire	Heraeus 99.99% Aluminium wire	Heraeus 99.99% Aluminium wire	Tanaka 99.99% Aluminium wire
Mold Compound	CEL8240HF10FC EME6600CS SG8200DL	CEL8240HF10FC EME6600CS SG8200DL	G700HF



	From		To	
	ON Suzhou	ON Suzhou	ON Suzhou	ON Seremban
Product marking change (QFET and MOSFET)	Line1: \$Y&Z&3&K Line2: Specific part number Line3: Specific part number Remark: \$Y = ON Semiconductor Logo &Z = Assembly Plant Code &3 = Data Code (Year & Week) &K = Lot 	Line1: \$Y&Z&3&K Line2: Specific part number Line3: Specific part number Remark: \$Y = ON Semiconductor Logo &Z = Assembly Plant Code &3 = Data Code (Year & Week) &K = Lot 	Line 2: Specific part number Trace code: \A/(YWW) Remark: A = Assembly Site Y = Year WW = Work Week 	
Product marking change (Ultrafast Diode)	Line1: \$Y&Z&3&K Line2: Specific part number Remark: \$Y = ON Semiconductor Logo &Z = Assembly Plant Code &3 = Data Code (Year & Week) &K = Lot 	Line1: \$Y&Z&3&K Line2: Specific part number Remark: \$Y = ON Semiconductor Logo &Z = Assembly Plant Code &3 = Data Code (Year & Week) &K = Lot 	Trace code: AYWW Line 2: Specific part number Remark: A = Assembly Site Y = Year WW = Work Week 	

Reliability Data Summary:

QV DEVICE NAME: FQB12P20TM (QFET)

RMS : S56028

PACKAGE : D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 80% of rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta = 150 °C, bias = 80% of 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 max, Ton = Toff = 3.5min	8572 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
UHASt	JESD22-A118	85°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or up to maximum 100V	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C		0/924



RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

QV DEVICE NAME: FDB082N15A (MV5-MOSFET)

RMS : S56050

PACKAGE : D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 80% of rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta = 150 °C, bias = 80% of 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 max, Ton = Toff = 3.5min	8572 cyc	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
UHASt	JESD22-A118	85°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or up to maximum 100V	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C		0/924
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

QV DEVICE NAME: FFB20UP30DNTM (Ultrafast Diode)

RMS : S55729

PACKAGE : D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 100% of rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C max, Ton = Toff = 3.5min	8572 cyc	0/231
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
H3TRB	JESD22-A101	85°C, 85% RH, bias = 80% of rated V or up to maximum 100V	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 245 °C		0/924
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 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
FDB082N15A	FDB082N15A
FDB088N08	FDB082N15A
FDB088N08-F141	FDB082N15A
FDB110N15A	FDB082N15A
FDB120N10	FDB082N15A
FDB14N30TM	FQB12P20TM
FDB150N10	FDB082N15A
FDB3502	FDB082N15A
FDB390N15A	FDB082N15A
FDB8444	FDB082N15A
FDB8447L	FDB082N15A
FDB86102LZ	FQB12P20TM
FFB20UP30DNTM	FFB20UP30DNTM
FQB11P06TM	FQB12P20TM
FQB12P20TM	FQB12P20TM
FQB19N20CTM	FQB12P20TM
FQB19N20LTM	FQB12P20TM
FQB19N20TM	FQB12P20TM
FQB22P10TM	FQB12P20TM
FQB27P06TM	FQB12P20TM
FQB30N06LTM	FQB12P20TM
FQB33N10LTM	FQB12P20TM
FQB33N10TM	FQB12P20TM
FQB44N10TM	FQB12P20TM
FQB50N06LTM	FQB12P20TM
FQB50N06TM	FQB12P20TM
FQB7P20TM	FQB12P20TM
FQB8P10TM	FQB12P20TM



FQB9P25TM	FQB12P20TM
IRFW630BTM-FP001	FQB12P20TM
ISL9R1560S3ST	FFB20UP30DNTM
ISL9R860S3ST	FFB20UP30DNTM

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
FDB082N15A		FDB082N15A
FDB088N08		FDB082N15A
FDB110N15A		FDB082N15A
FDB120N10		FDB082N15A
FDB14N30TM		FQB12P20TM
FDB150N10		FDB082N15A
FDB3502		FDB082N15A
FDB390N15A		FDB082N15A
FDB8444		FDB082N15A
FDB8447L		FDB082N15A
FDB86102LZ		FQB12P20TM
FFB20UP30DNTM		FFB20UP30DNTM
FQB11P06TM		FQB12P20TM
FQB12P20TM		FQB12P20TM
FQB19N20CTM		FQB12P20TM
FQB19N20LTM		FQB12P20TM
FQB19N20TM		FQB12P20TM
FQB22P10TM		FQB12P20TM
FQB27P06TM		FQB12P20TM
FQB30N06LTM		FQB12P20TM
FQB33N10LTM		FQB12P20TM
FQB33N10TM		FQB12P20TM
FQB44N10TM		FQB12P20TM
FQB50N06LTM		FQB12P20TM
FQB50N06TM		FQB12P20TM
FQB7P20TM		FQB12P20TM
FQB8P10TM		FQB12P20TM
FQB9P25TM		FQB12P20TM
ISL9R1560S3ST		FFB20UP30DNTM
ISL9R860S3ST		FFB20UP30DNTM