



Title of Change:	Qualification of United Microelectronics Corp (UMC), Taiwan as an additional wafer fabrication facility for Trench 3 Schottky MOSFETs.		
Proposed first ship date:	9 September 2017		
Contact information:	Contact your local ON Semiconductor Sales Office or <guokun.yeng@onsemi.com>		
Samples:	Contact your local ON Semiconductor Sales Office		
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Don.Knudsen@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:	There will be change to the finished good part marking on product assembled with the Trench Die fabricated from the UMC Wafer Fab facility. Full traceability of the die manufacturing facility will be available through the lot number recorded on the shipping labels.		
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) : ☒ External Foundry/Subcon site(s) UNITED MICROELECTRONICS CORP, TAIWAN			
Description and Purpose: This Product Change Notice is to announce that ON Semiconductor is adding wafer fabrication capacity for their Trench 3 Schottky MOSFET technology silicon platforms. ON Semiconductor has qualified United Microelectronics Corp (UMC), a wafer fabrication facility located in Taiwan. Upon expiration of this FPCN, ON Semiconductor will supply parts utilizing the UMC fab. Device quality and reliability will continue to meet ON Semiconductors high standards.			

**Reliability Data Summary:**

QV Device Name: NTMFS4933NT1G; NTMFS4935NT1G; NTMFS4982NFT1G

Test	Name	Test Conditions	Test Results	(rej/ ss)	(rej/ ss)	(rej/ ss)	(rej/ ss)
			Read Point	Lot A NTMFS4933	Lot B NTMFS4933	Lot A NTMFS4935	Lot B NTMFS4935
Prep	Sample preparation and initial part testing	various	Initial Electrical	done	done	done	done
HTRB	High Temp Reverse Bias	TA = 150°C, Vgss = 100% of max rated	504 Hrs	0/77	0/77	0/77	0/77
HTGB	High Temp Gate Bias	TA = 150°C, Vdss = 80% of max rated	504 Hrs	0/77	0/77	0/77	0/77
MSL 1 PC - IOL	Intermittent Operating Life + PC	Ta=+25°C, delta Tj=100°C On/of = 2 min	7500 Hrs	0/77	0/77	0/77	0/77
MSL 1 PC - TC	Temperature Cycling + PC	-55 °C to + 150°C	500 Cyc	0/77	0/77	0/77	0/77
MSL 1 PC - AC	Autoclave + PC	121°C/100% RH/15psig	96 Hrs	0/77	0/77	0/77	0/77
MSL 1 PC - HAST	Highly Accelerated Stress Test	Temp= +131°C, RH=85%, p = 18.8 psig, bias	96 Hrs	0/77	0/77	0/77	0/77

Test	Name	Test Conditions	End Point Req's	Test Results	(rej/ ss)	(rej/ ss)	(rej/ ss)
				Read Point	Lot A NTMFS4982NF	Lot B NTMFS4982NF	Lot C NTMFS4982NF
Prep	Sample preparation and initial part testing	various	---	Initial Electrical	done	done	done
HTRB	High Temp Reverse Bias	Tj = 150°C for 1008 hours	c = 0, Room	168 hr	0/84	0/84	0/84
				504 Hrs	0/84	0/84	0/84
				1008 Hrs	0/84	0/84	0/84

Electrical Characteristic Summary:

There is no change in electrical parametric performance. Characterization data is available upon request.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
NTMFD4952NFT1G	NTMFS4933NT1G NTMFS4935NT1G NTMFS4982NFT1G