



Title of Change:	Trench 6 Technology Capacity Expansion by Qualification of Aizu Fujitsu Semiconductor Manufacturing, Japan.
Proposed Changed Material First Ship Date:	27 April 2018 <i>or earlier upon customer approval.</i>
Current Material Last Order Date:	N/A
Current Material Last Delivery Date:	N/A
Product Category:	Active components – Discrete components
Contact information	Contact your local ON Semiconductor Sales.
Samples	Contact your local ON Semiconductor Sales Office or <Cheryl.Nudo@onsemi.com> Sample requests are to be submitted no later than 45 days after publication of this change notification.
Sample Availability Date:	1 June 2017
PPAP Availability Date:	27 May 2017
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 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.
Change Category:	Type of Change
Process – Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor
Process – Wafer Production	Process integrity: tuning within specification
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.
Description and Purpose:	
This is a final change notification to customers on the qualification of additional wafer fabrication capacity of 40V and 60V Trench (T6) MOSFET technology in Aizu Fujitsu Semiconductor Manufacturing (AFSM) located in Aizu, Japan. At the expiration of this notification, all products listed here will be dual sourced from its current ON Semiconductor wafer fab in Gresham and AFSM.	
Reason / Motivation for Change:	Change benefits for customer: FAB capacity expansion to meet customer demand Quality improvement: No change Risk for late release for customer: Failure to approve will expose the possible risk of not getting all the required products or cause an extended lead time to receive the products
Anticipated impact on fit, form, function, reliability, product safety or manufacturability	The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.
Sites Affected:	
<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input type="checkbox"/> ON Semiconductor site(s) : <input checked="" type="checkbox"/> External Foundry/Subcon site(s) <i>FUJITSU SEMICONDUCTOR LTD.</i>	


**Marking of Parts/
Traceability of Change:**

Affected products will be identified with date code.

Reliability Data Summary:
NVMF55C604NLT1G (60V LL)
Package: S08FL HEFET

Test	Specification	Condition	Interval	Sample Size	Results
HTRB	MILSTD750-1 method M1038A	Ta = 175°C, 100% max rated Bvdss	1008 hrs	84pcs/3 lots	0/252
HTGB	JESD22 A108	Ta = 175°C, 100% rated Vgss	1008 hrs	84pcs/3 lots	0/252
HTSL	JESD22-A103	Ta=175°C	2016 hrs	84pc/3 lots	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	84pc/3 lots	0/252
TC	JESD22-A104	Ta=-55°C to +150°C	1000 cyc	84pc/3 lots	0/252
HAST	JESD22-A110	130°C, 85% RH, 80% Vds, 18.8psig	192 hrs	84pc/3 lots	0/252
Uhast	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	192 hrs	84pc/3 lots	0/252

NVMF55C404NT1G (40V SG)
Package: S08FL HEFET

Test	Specification	Condition	Interval	Sample Size	Results
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	84pc/3 lots	0/252

NVMF55C410NLT1G (40V LL)
Package: S08FL

Test	Specification	Condition	Interval	Sample Size	Results
HTRB	MILSTD750-1 method M1038A	Ta = 175°C, 100% max rated Bvdss	1008 hrs	84pcs/3 lots	0/252
HTGB	JESD22 A108	Ta = 175°C, 100% rated Vgss	1008 hrs	84pcs/3 lots	0/252
HTSL	JESD22-A103	Ta=175°C	1008 hrs	84pc/3 lots	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	84pc/3 lots	0/252
TC	JESD22-A104	Ta=-55°C to +150°C	1000 cyc	84pc/3 lots	0/252
HAST	JESD22-A110	130°C, 85% RH, 80% Vds, 18.8psig	96 hrs	84pc/3 lots	0/252
Uhast	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	84pc/3 lots	0/252



Note: AEC-1pager is attached.

To access file attachments on pdf copy of PCN, please be guided by the steps below:

1. Download pdf copy of the PCN to your computer
2. Open the downloaded pdf copy of the PCN
3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field
4. Then click on the attached file/

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Standard Parts

Current Part Number	Qualification Vehicle
NVMF55C604NLT1G	
NVMF55C604NLT3G	
NVMF55C604NLWFT1G	
NVMF55C604NLWFT3G	
NVMF55C612NLT1G	
NVMF55C612NLT3G	
NVMF55C612NLWFT1G	
NVMF55C612NLWFT3G	
NVMF55C628NLT1G	
NVMF55C628NLT3G	
NVMF55C628NLWFT1G	
NVMF55C628NLWFT3G	
NVMF55C645NLT1G	
NVMF55C645NLT3G	
NVMF55C645NLWFT1G	NVMF55C604NLT1G
NVMF55C645NLWFT3G	
NVMF55C646NLT1G	
NVMF55C646NLT3G	
NVMF55C646NLWFT1G	
NVMF55C646NLWFT3G	
NVMF55C670NLT1G	
NVMF55C670NLT3G	
NVMF55C670NLWFT1G	
NVMF55C670NLWFT3G	
NVMF55C673NLT1G	
NVMF55C673NLT3G	
NVMF55C673NLWFT1G	
NVMF55C673NLWFT3G	
NVMF55C682NLT1G	



NVMF55C682NLT3G	
NVMF55C682NLWFT1G	
NVMF55C682NLWFT3G	
NVMF55C404NLT1G	
NVMF55C404NLT3G	
NVMF55C404NLWFT1G	
NVMF55C404NLWFT3G	
NVMF55C410NLT1G	
NVMF55C410NLT3G	
NVMF55C410NLWFT1G	
NVMF55C410NLWFT3G	
NVMF55C423NLT1G	
NVMF55C423NLT3G	
NVMF55C423NLWFT1G	
NVMF55C423NLWFT3G	
NVMF55C430NLT1G	
NVMF55C430NLT3G	
NVMF55C430NLWFT1G	
NVMF55C430NLWFT3G	
NVMF55C442NLT1G	
NVMF55C442NLT3G	
NVMF55C442NLWFT1G	
NVMF55C442NLWFT3G	NVMF55C604NLT1G
NVMF55C442NLWFT3G	NVMF55C410NLT1G
NVMF55C450NLT1G	
NVMF55C450NLT3G	
NVMF55C450NLWFT1G	
NVMF55C450NLWFT3G	
NVMF55C456NLT1G	
NVMF55C456NLT3G	
NVMF55C456NLWFT1G	
NVMF55C456NLWFT3G	
NVMF55C460NLT1G	
NVMF55C460NLT3G	
NVMF55C460NLWFT1G	
NVMF55C460NLWFT3G	
NVMF55C468NLT1G	
NVMF55C468NLT3G	
NVMF55C468NLWFT1G	
NVMF55C468NLWFT3G	



NVMFS5C404NT1G	NVMFS5C604NLT1G NVMFS5C404NT1G
NVMFS5C404NT3G	
NVMFS5C404NWFT1G	
NVMFS5C404NWFT3G	
NVMFS5C410NT1G	
NVMFS5C410NT3G	
NVMFS5C410NWFT1G	
NVMFS5C410NWFT3G	
NVMFS5C426NT1G	
NVMFS5C426NT3G	
NVMFS5C426NWFT1G	
NVMFS5C426NWFT3G	
NVMFS5C430NT1G	
NVMFS5C430NT3G	
NVMFS5C430NWFT1G	
NVMFS5C430NWFT3G	
NVMFS5C442NT1G	
NVMFS5C442NT3G	
NVMFS5C442NWFT1G	
NVMFS5C442NWFT3G	
NVMFS5C450NT1G	
NVMFS5C450NT3G	
NVMFS5C450NWFT1G	
NVMFS5C450NWFT3G	