ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22128X
Issue Date: 25 January 2018

Title of Change:	FAN8811TMPX Voltage spike immunity and Breakdown Voltage spec update
Proposed first ship date:	2 May 2018 or earlier upon customer approval
Contact information:	Contact your local ON Semiconductor Sales Office or <scott.brow@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office
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:	Product shipped after WW17 2018 will be built with die with the design modification listed in this notification.
Change category:	☐ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☒ Other Design Change

Change Sub-Category(s): *[Multiple options might be applicable]*

☐ Manufacturing Site Change/Addition
☐ Manufacturing Process Change
☐ Material Change
☒ Product specific change
☒ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☒ Other: Device Change/Improvement

Sites Affected:	ON Semiconductor Sites: ON S. Portland, Maine	External Foundry/Subcon Sites: UTAC

Description and Purpose:

This notification is to inform customers of (2) changes to the FAN8811TMPX. During additional temperature characterization, it was found that the product is not capable of meeting the current 120V Breakdown voltage over temperature as specified in the datasheet. Based on the results, the datasheet will be modified to show a maximum breakdown of 100V as shown here:

Symbol	Parameter	Min	Old Max	New Max	Units
VHS	High-Side Floating Supply Offset Voltage(Note 2)	-1	~~118~~	100	V
	Repetitive Pulse (< 100 ns)(Note 3)	-(24 – VDD)	~~118~~	100	V

Additionally, some customer interactions showed that the product had a lower High Voltage spike immunity than competitor products. In order to improve the device performance an additional SCR ESD Diode in the Half-bridge structure of the device has been added. By adding this structure, the product is now able to handle a significantly higher voltage spike than before.

Reliability Data Summary:

There is no reliability data associated with this notification. Only ESD validation and electrical characterization is necessary.

Electrical Characteristic Summary:

Voltage Spike Immunity:

	DC-BV	Voltage spike immunity
Competitor	127V	145V
FAN8811	131V	128V
Revised FAN8811	almost same	Around 150V

ESD Results:

	Current FAN8811	Revised FAN8811
HBM	>2kV	>2kV
CDM	>1kV	>1kV

List of Affected Standard Parts:

Part Number	Qualification Vehicle
FAN8811TMPX	FAN8811TMPX