Final Product/Process Change Notification

Document #:FPCN25156Z
Issue Date: 28 Sep 2023

Title of Change:	Small Signal Transistors in WDFN6 package Assembly Transfer from UTAC, Thailand to onsemi Seremban, Malaysia.
Proposed Changed Material First Ship Date:	04 Apr 2024 or earlier if approved by customer
Current Material Last Order Date:	N/A *Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability*.
Current Material Last Delivery Date:	N/A *The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory*
Product Category:	Active components – Discrete components
Contact information:	Contact your local onsemi Sales Office or BernardRajVellangani.Pelevindran@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Sample Availability Date:	01 Dec 2023
PPAP Availability Date:	30 Nov 2023
Additional Reliability Data:	Contact your local onsemi Sales Office or MohdAzizi.Azman@onsemi.com
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi 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

Category	**Type of Change**
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.
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Change of mold compound, Die attach material, Change in critical dimensions of package, Change of wire bonding Change in leadframe dimensions

Description and Purpose:

onsemi is publishing this Product Change Notification in order to notify customers of the transfer of Small Signal Transistor in WDFN6 package produced in UTAC, Thailand to onsemi Seremban, Malaysia.

onsemi Seremban, Malaysia is an existing qualified manufacturing site for onsemi which is certified with IATF 16949:2016

	From	**To**
Assembly Site	UTAC, Thailand	onsemi Seremban, Malaysia
LeadFrame	SFS Wettable Flank	Step Cut Wettable Flank

Die Attach	1. ABLETHERM 8600 CONDUCTIVE 2. EPOXY ABLESTICK 8200T	CRM1084P
Bond Wire	1.3mil Gold Wire	1.3mil Palladium Coated Copper Wire
Mold Compound	1. Sumitomo G770HCD 2. MC G700LTD	MC EME-G720D Type
Case Outline	506AN	515AM

Reason / Motivation for Change:	Supply disruption,Process/Materials Change
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 onsemi in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Seremban, Malaysia	None

Marking of Parts/ Traceability of Change:	Changed material may be identified by lot code or date code

Reliability Data Summary:

QV DEVICE NAME : NSV60101DMTWTBG
RMS: S86916, S89980
PACKAGE: WDFN6

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/231
Early Life Failure Rate	JESD22-A108	Ta=150°C, 100% max rated V	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only		0/924
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C, mount on board	1000 cyc	0/231
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/90
Solderability	JSTD002	Ta = 245°C, 5 sec		0/45

QV DEVICE NAME : NSV60200DMTWTBG
RMS: S74843, S73609
PACKAGE: WDFN6

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/231
High Temperature Storage Life	JESD22-A103	Ta= 150°C	1008 hrs	0/231
Early Life Failure Rate	JESD22-A108	Ta=150°C, 100% max rated V	48 hrs	0/2400
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only		0/924
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
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Note: AEC-1pager is attached.

To view attachments:
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 Characteristics 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****.*

Current Part Number	New Part Number	Qualification Vehicle
NSV20200DMTWTBG	NA	NSV60200DMTWTBG
NSV20201DMTWTBG	NA	NSV60101DMTWTBG
NSV60101DMTWTBG	NA	NSV60101DMTWTBG
NSV60200SMTWTBG	NA	NSV60200DMTWTBG
NSV60201SMTWTBG	NA	NSV60101DMTWTBG
NSV60200DMTWTBG	NA	NSV60200DMTWTBG