Final Product/Process Change Notification

Document #:FPCN26304X
Issue Date:19 Oct 2025

Title of Change:	Qualification of onsemi ISMF Fab (Malaysia) for LSBJT(Low VCE(sat) Bipolar Junction Transistor) device housed in SOT-89 package and Copper Wire conversion in ATO site.
Proposed First Ship date:	26 Jan 2026 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office
PCN Samples Contact:	Contact your local onsemi Sales Office. 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 onsemi 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. onsemi 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
Marking of Parts/ Traceability of Change:	Changed material can be identified by date code or lot code
Change Category:	Wafer Fab Change, Assembly Change
Change Sub-Category(s):	Manufacturing Site Transfer, Material Change, Manufacturing Process Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Shenzhen, China	None
onsemi, ISMF Malaysia	

Description and Purpose:

onsemi wishes to inform customers of its plan to transfer the manufacturing of Low VCE(sat) Bipolar Junction Transistor (LSBJT) devices housed in the SOT-89 package from JS Foundry, Japan to onsemi ISMF fab in Malaysia.

This transfer is part of the onsemi Fab Liter strategy following the sale of the Niigata factory.

The change ensures supply continuity and includes updates to the bill of materials to align with the existing onsemi LSBJT product family.

Additional material changes will be implemented at the Shenzhen, China site.

SOT-89 packages

	From	**To**
Fab Site	JS Foundry, Japan	onsemi, ISMF Malaysia
Backgrind process site	JS Foundry, Japan	onsemi, ISMF Malaysia
Wafer probe site	JS Foundry, Japan	onsemi, ISMF Malaysia
Wafer front metal	Al (4.3um/5.5um)	AlSi 2um + 1.5kA TiW + Al 4um
Wafer back metal	Au/Sb + TiNiAu or TiNiAu	TiNiAg 11.5kA
Bond Wire	Au wire	Cu wire
Mold Compound	MP-101EK-2(Halogen EMC)	GE-1030FK-A (Halogen free EMC)
Leadframe (OPN 2SA2016-TD-E Only)	Flag Size: 2.2x1.8mm (Design PCP-2)	Flag Size: 2.0x1.7mm (Design PCP-1)

Reliability Data Summary:

QV DEVICE NAME : 2SA1419S-TD-E
RMS : 98290
PACKAGE : SOT-89

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/252
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs	0/252
Preconditioning	J-STD-020 JESD-A113	MSL 1 @260°C	-	0/1113
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2min	15,000 cyc	0/252
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/336
Highly Accelerated Stress Test	JESD22-A110	110°C, 85% RH, 3psig, bias = 80% of rated V or 100V max	264 hrs	0/273
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec	-	0/30

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****.*

Part Number	Qualification Vehicle
2SA2202-TD-E	2SA1419S-TD-E
2SA2016-TD-E	2SA1419S-TD-E
2SA1419S-TD-E	2SA1419S-TD-E
2SA1416S-TD-E	2SA1419S-TD-E
2SA1416T-TD-E	2SA1419S-TD-E
2SA1417S-TD-E	2SA1419S-TD-E
2SA1417T-TD-E	2SA1419S-TD-E
2SA1418S-TD-E	2SA1419S-TD-E
2SB1123S-TD-E	2SA1419S-TD-E
2SB1123T-TD-E	2SA1419S-TD-E
2SA2013-TD-E	2SA1419S-TD-E