



Power Integrations

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PRODUCT/MANUFACTURING CHANGE NOTIFICATION

Control No. PCN-07261

Date: July3, 2007

Type of Change: **Design:** ☐ **Manufacturing** ☒ **Other** ☐

In accordance with Power Integrations policy of critical change notification and JEDEC standard EIA/JESD-46 guidelines, we take this opportunity to serve you this notice. If you have any questions or need further assistance, please contact PI Sales office serving your geographic location.

DESCRIPTION OF THE CHANGES:

Addition of Seiko-EPSON, Sakata, Japan for fabrication of all PI products.

EFFECT ON PRODUCTS PREVIOUSLY SHIPPED: None

EFFECT ON PRODUCT QUALITY: None. Reliability testing results are included in the attached reliability report. No reliability issues have been observed. Seiko-EPSON six-inch wafer fabrication facility at Sakata, Japan has been manufacturing wafers in high volume for many years.

PART NUMBERS AFFECTED:

This change is effective for all PI products.

REASON FOR CHANGE: To increase manufacturing capacity and to ensure supply from multiple sources.

EFFECTIVE DATE: October 2, 2007

Please note that products with the above changes may begin to be shipped after the effective date stated above without further notice.



**Reliability
Engineering
Qualification
Report**

Qualification Report No: Q064203
Date: 06/14/2007
Author: Nick Stanco
Product Engineer: Mikael Garrett

Project Title: Seiko-Epson Corporation (SEC) 6" Wafer Fab Qualification

Summary: Reliability testing was conducted on TOP249YN, TOP246PN, TNY268PN and TNY266PN products per qual plan Q064203 for qualification of the Seiko-Epson Corporation (SEC) 6" wafer fab in Sakata, Japan.

Accelerated life testing, environmental reliability stress testing were completed with no failures. Product electrical parameter characterization was completed with acceptable results. Quality system audit was completed with satisfactory results.

Based on all of these results, the Seiko-Epson Corporation wafer fab is now fully qualified and released for production of Power Integrations products.

Qualification Vehicles: TOP249YN, TOP246PN, TNY266PN, TNY268PN

Justification: New wafer fabrication facility for additional capacity and multiple source for wafers

Material Affected: All Power Integrations products.

Affected Wafer Fab: Seiko-Epson Corporation (SEC) 6" Wafer Fab, Sakata, Japan

TOP249YN Reliability Test Results and Conditions

Test Name	TOP249YN Lot 42556F	TOP249YN Lot 46070A	TOP249YN Lot 44069B with MSL4 Preconditioning (1)	Duration/Conditions
DOPL	0/47	0/47	0/46	1000 hr, Tj=125°C, Vd=560V switching
HTRB	0/47	0/47	0/47	1000 hr, Ta=150°C, Vd=560V
THBT	0/47	0/47	0/46	1000 hr, 85°C/85% RH, Vd=30V
Temp. Cycle	0/47	-----	0/47	1000 cycles, -65°C to +150°C air to air
Electrical parameter characterization	Passed	Passed	Passed	-40°C, 25°C, 125°C

(1) Indicated lots were preconditioned at MSL4 with 225°C solder reflow to cover R (TO-263-7C) package qualification

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TOP246PN Reliability Test Results and Conditions

Test Name	TOP246PN Lot 43203A with MSL4 Preconditioning (1)	TOP246PN Lot 43586A with MSL4 Preconditioning (1)	Duration/Conditions
DOPL	0/47	0/47	1000 hr, Tj=125°C, Vd=560V switching
HTRB	0/47	0/47	1000 hr, Ta=150°C, Vd=560V
THBT	0/47	0/47	1000 hr, 85°C/85% RH, Vd=30V
TMCL	0/47	0/47	1000 cy, -65°C to +150°C air to air
Electrical parameter characterization	Passed	Passed	-40°C, 25°C, 125°C

(1) Indicated lots were preconditioned at MSL4 with 260°C Pb-free solder reflow to cover GN (SMD-8, 8B, 8C) packages

TNY266PN and TNY268PN Reliability Test Results and Conditions

Test Name	TNY266PN Lot 43529A with MSL4 Preconditioning (1)	TNY268PN Lot 38447C with MSL4 Preconditioning (1)	Duration/Conditions
DOPL	0/47	0/47	1000 hr, Tj=125°C, Vd=560V, Switching
HTRB	0/47	0/47	1000 hr, Ta=150°C, Vd=560V
THBT	0/47	0/47	1000 hr, 85°C/85% RH, Vd=30V
TMCL	0/47	0/47	1000 cy, -65°C to +150°C
Electrical parameter characterization	Passed	Passed	-40°C, 25°C, 125°C

(1) Indicated lots were preconditioned at MSL4 with 260°C Pb-free solder reflow to cover GN (SMD-8, 8B, 8C) package

Conclusion: All reliability stress tests and other requirements have been completed with acceptable results and the SEC 6" wafer fab is now fully qualified and approved for production of all of Power Integrations products.

Approvals

Approved By	Signature	Date
Reliability Engineer:	On File	On File
Product Engineering Manager:	On File	On File
Director of Technology Development:	On File	On File
Reliability Engineering Manager:	On File	On File
Director of Quality:	On File	On File