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Control No. PCN-18191

October 6, 2018

**PRODUCT/PROCESS CHANGE NOTIFICATION**

**TYPE OF CHANGE:**       Design       Manufacturing       Other

This notification is provided in accordance with Power Integrations policy of product/process change notification. If you have any questions or need further assistance, please contact your regional Power Integrations sales office.

**DESCRIPTION OF CHANGE**

1. Japan Semiconductor Corporation (“JSO”), Oita, Japan is added as an alternative 200mm wafer fab site for the products listed below.
2. There is neither change in technology nor the bill of materials.

**REASON FOR CHANGE**

Improve manufacturing flexibility and diversification of manufacturing sites.

**PRODUCTS AFFECTED**

| Family         | Part Numbers   |
|----------------|--|
| InnoSwitch3-CE | INN3162C-Hxxx, INN3163C-Hxxx, INN3164C-Hxxx, INN3165C-Hxxx, INN3166C-Hxxx, INN3167C-Hxxx, INN3168C-Hxxx, SC1537C, SC1538C, SC1541C, SC1545C-HC13, SC1546C, SC1546C-HC15, SC1549C-HC30, SC1551C-HC26, SC1553C, SC1554C, SC1556C |
| InnoSwitch3-CP | INN3264C-Hxxx, INN3265C-Hxxx, INN3266C-Hxxx, INN3267C-Hxxx, INN3268C-Hxxx, INN3274C-Hxxx, INN3275C-Hxxx, INN3276C-Hxxx, INN3277C-Hxxx, SC1536C, SC1540C, SC1542C, SC1544C, SC1547C-HC17, SC1548C-HC32, SC1555C, SC1557C        |
| InnoSwitch3-EP | INN3672C-Hxxx, INN3673C-Hxxx, INN3674C-Hxxx, INN3675C-Hxxx, INN3676C-Hxxx, INN3677C-Hxxx   |
| LYTSwitch-6    | LYT6063C, LYT6065C, LYT6067C, LYT6068C, LYT6073C, LYT6075C, LYT6077C   |

**QUALIFICATION STATUS**

See Appendix 1 for the qualification report.

**EFFECT ON CUSTOMER**

No adverse impact is expected in customers' applications. The product will be guaranteed to meet the datasheet limits.

**EFFECTIVE DATE**

January 7, 2019. This date is subject to change. Products fabricated at the current locations will continue to be shipped after the addition.

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**SAMPLE AVAILABILITY**

Samples will be available 8 weeks from the date of request. Please send requests for samples within two weeks after receipt of this notification to the local Power Integrations sales office. For manufacturers that request samples, an accommodation will be made in order to allow time of customer's qualification in a case-specific manner.

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Appendix 1  
Reliability Engineering  
Qualification Report

Qualification Project: E175001

**Project Title: Qualification of Japan Semiconductor Corporation, Oita, Japan ("JSO") as a wafer fabrication facility**

**Qual Summary:**

Reliability testing was performed on InnoSwitch-3 products for wafer fabrication of the controller dice at Japan Semiconductor Corporation, Oita, Japan, also known as "JSO". All required reliability tests were completed on three qualification lots with passing results. Yield analysis and assembly-level testing were completed with acceptable results. Based on these results, "JSO" is a qualified wafer fabrication site for production of InnoSwitch-3 products.

Qualification Vehicles: INN3168C

**Reliability Test Descriptions and Conditions**

| Test Name                                 | Conditions  | Reference Specification |
|---|---|-------------------------|
| DOPL (Dynamic Operating Life Test)        | Tj=125°C, Vd <sub>(peak)</sub> =520V, Vsupply = VBP                     | EIA/JESD22-A108-D       |
| HTRB (High Temperature Reverse Bias Test) | Ta=150°C; Vd=520V, Vsupply = VBP  | EIA/JESD22-A108-D       |
| THBT (Temperature Humidity Bias Test)     | 85°C, 85% RH, Vd=30V, Vsupply = VBP                                     | EIA/JESD22-A101-C       |
| TMCL (Temperature Cycle, Air to Air)      | -40°C to +125°C, air to air   | EIA/JESD22-A104-E       |
| HTSL (High Temperature Storage Life)      | Ta=175°C; unbiased  | EIA/JESD22-A103-D       |
| HALT (Humidity Accelerated Life Test)     | DOPL bias condition; Tj=115°C, 85% RH                                   | Internal Standard       |
| MSL3 Preconditioning                      | 24-hr 150C bake → 40-hr 60°C, 60% RH soak → 3 passes 260C solder reflow | IPC/JEDEC J-STD-020E    |

**DOPL (Dynamic Operating Life)**

| Product  | Lot #   | Qualification Project | Test Duration | No. Failures/Sample Size |
|----------|---------|-----------------------|---------------|--------------------------|
| INN3168C | M6P085B | E175001               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6P084B | E172011               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6T338A | E180601               | MSL3 + 1000hr | 0 / 47                   |

**THBT (Temperature Humidity Bias)**

| Product  | Lot #   | Qualification Project | Test Duration | No. Failures/Sample Size |
|----------|---------|-----------------------|---------------|--------------------------|
| INN3168C | M6P085B | E175001               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6P084B | E172011               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6T338A | E180601               | MSL3 + 1000hr | 0 / 47                   |

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**HTSL (High Temperature Storage Life)**

| Product  | Lot #   | Qualification Project | Test Duration | No. Failures/Sample Size |
|----------|---------|-----------------------|---------------|--------------------------|
| INN3168C | M6P085B | E175001               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6P084B | E172011               | MSL3 + 1000hr | 0 / 47                   |
| INN3168C | M6T338A | E180601               | MSL3 + 1000hr | 0 / 47                   |

**TMCL (Temperature Cycling)**

| Product  | Lot #   | Qualification Project | Test Duration  | No. Failures/Sample Size |
|----------|---------|-----------------------|----------------|--------------------------|
| INN3168C | M6P085B | E175001               | MSL3 + 850 cyc | 0 / 47                   |
| INN3168C | M6P084B | E172011               | MSL3 + 850 cyc | 0 / 47                   |
| INN3168C | M6T338A | E180601               | MSL3 + 850 cyc | 0 / 47                   |

**HALT (Humidity Accelerated Life Test)**

| Product  | Lot #   | Qualification Project | Test Duration | No. Failures/Sample Size |
|----------|---------|-----------------------|---------------|--------------------------|
| INN3168C | M6P085B | E175001               | MSL3 + 1000hr | 0 / 20                   |
| INN3168C | M6P084B | E172011               | MSL3 + 1000hr | 0 / 20                   |
| INN3168C | M6T338A | E180601               | MSL3 + 1000hr | 0 / 20                   |

**Conclusion:** Based on acceptable results, InnoSwitch-3 products are qualified for wafer fabrication at Japan Semiconductor Corporation (“JSO”), Oita, Japan.

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**CUSTOMER ACKNOWLEDGEMENT**

Power Integrations requests you acknowledge the receipt of the above-mentioned PCN. If no acknowledgment is received within 30 days of this notification, Power Integrations will assume the change is acceptable. Lack of any additional response within 90 days of this notification further constitutes acceptance of the change.

Power Integrations reserves the right to ship either version manufactured after the effective date.

If you have any questions or need further assistance, please contact your regional Power Integrations sales office. Otherwise, please check the box below, acknowledging the receipt of the PCN.

**The indicated Product/Process Change Notification was received by the undersigned authority.**

Name/Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Email Address/Phone#: \_\_\_\_\_

Company/Location: \_\_\_\_\_

**CUSTOMER COMMENTS**

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Please email this signed form to [pcn@power.com](mailto:pcn@power.com) specifying the PCN# in the subject.

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