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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20424**Generic Copy

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**Issue Date:** 09-Apr-2014

**TITLE:** Announcement of change of lead frame material associated with heavy snow damage at Furukawa Electric Co., Ltd. Nikko plant.

**PROPOSED FIRST SHIP DATE:** 09-Jul-2014 (or earlier with customer approval)

**AFFECTED CHANGE CATEGORY(S):** Material Change of Lead Frame

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or <[Takayuki.Tani@onsemi.com](mailto:Takayuki.Tani@onsemi.com)>

**SAMPLES:** May be available

Contact your local ON Semiconductor Sales Office or <[Shigehito.Matsumoto@onsemi.com](mailto:Shigehito.Matsumoto@onsemi.com)>

**ADDITIONAL RELIABILITY DATA:**

Contact your local ON Semiconductor Sales Office or <[Kazutoshi.Kitazume@onsemi.com](mailto:Kazutoshi.Kitazume@onsemi.com)>

**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <[quality@onsemi.com](mailto:quality@onsemi.com)>.

**DESCRIPTION AND PURPOSE:**

Furukawa Electric Co., Ltd.(Nikko plant), the supplier of raw material (Copper alloy) for many of our lead frames experienced severe damage to their Nikko factory due to extremely heavy snow in mid February. We sincerely apologize to you for the inconvenience encountered due to this unexpected damage. While we are still negotiating with Furukawa Electric for purchasing the needed material, it now appears that recovery will take longer than expected and our current inventory of finished lead frames may not be able to bridge the gap until full production resumes at the Furukawa Electric Co., Ltd. Nikko plant. In response to this issue, we would like to communicate our strategy and plans towards ensuring uninterrupted product delivery by using alternative lead frame material (alternative Copper alloy with minor composition change). We have decided to adopt an alternative lead frame material for affected products only during a period (supposing less than one month) until original materials being available to avoid any delivery shortage of affected products to customer.

Our alternative product delivery implementation plan should be communicated to you by our sales representative immediately. We are now focusing on maintaining product delivery as our utmost priority so that our customers will not experience delivery inconveniences. Additionally we have been, and will continue to make our best efforts to ramp up alternate products as quickly as we can.

This letter will serve as our 'Product Change Notice' with respect to the events at Furukawa heavy snow damage.

Your further understanding for our simplified procedure towards changes and your continuous support for our circumstance are immensely appreciated.

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20424****RELIABILITY DATA:**

We have determined the alternative material but have not yet received them in our assembly site, so reliability qualification is not in process and data cannot be made available for completed tests at this time. The reliability test plan shown below will be completed as soon as the alternative material is available to be assembled in the relevant packages.

Reliability testing (see below Table) will be completed before releasing product for shipments.

However, if you prefer to receive product before our full completion of reliability testing, we will require you to send back the attached letter which shows acknowledged contents and includes a form for customer approval.

Please contact your local sales person for the arrangement and agreement.

See attachment "Customer Approval form".

**Table: Reliability Test Plan:**

Test	Conditions	Duration
TCT Temperature Cycle Test	-55dC 30min⇔+150C 30min	200cycles
PCT Pressure Cooker Test	121dC, 100%Rh, 2.05Kpa	100hours
RSH Resistance to Solder Heat (SMD : Reflow Soldering) (THD : Flow Soldering)	(SMD)255dC,10s(Peak260dC) (THD) 260dC,10s	(SMD)2times (THD) 1time



## FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20424

### CHANGED PART IDENTIFICATION:

Alternative product is to be identified by change of OPN (Order Part Name) that will be added suffix "-FL".

Current OPN	Alternative OPN
2SA1370E-AE	2SA1370E-AE-FL
2SA1371E	2SA1371E-FL
2SA2127	2SA2127-FL
2SA2127-AE	2SA2127-AE-FL
2SC3468E-AE	2SC3468E-AE-FL
2SC6043	2SC6043-FL
2SC6043-AE	2SC6043-AE-FL
2SD1207S	2SD1207S-FL
2SD1207S-AE	2SD1207S-AE-FL
2SD1207T	2SD1207T-FL
2SD1207T-AE	2SD1207T-AE-FL
2SD1207T-OMR-AE	2SD1207T-OMR-AE-FL
2SD438E-MP	2SD438E-MP-FL
2SD438E-MP-AE	2SD438E-MP-AE-FL
ATP101-TL-H	ATP101-TL-H-FL
ATP101-TL-HX	ATP101-TL-HX-FL
ATP101-V-TL-H	ATP101-V-TL-H-FL
ATP102-TL-H	ATP102-TL-H-FL
ATP103-TL-H	ATP103-TL-H-FL
ATP104-TL-H	ATP104-TL-H-FL
ATP106-TL-H	ATP106-TL-H-FL
ATP107-TL-H	ATP107-TL-H-FL
ATP108-TL-H	ATP108-TL-H-FL
ATP112-TL-H	ATP112-TL-H-FL
ATP112-TL-HX	ATP112-TL-HX-FL
ATP113-TL-H	ATP113-TL-H-FL
ATP114-TL-H	ATP114-TL-H-FL
ATP201-TL-H	ATP201-TL-H-FL

Current OPN	Alternative OPN
ATP201-V-TL-H	ATP201-V-TL-H-FL
ATP202-TL-H	ATP202-TL-H-FL
ATP203-TL-H	ATP203-TL-H-FL
ATP204-TL-H	ATP204-TL-H-FL
ATP206-TL-H	ATP206-TL-H-FL
ATP207-TL-H	ATP207-TL-H-FL
ATP208-TL-H	ATP208-TL-H-FL
ATP212-S-TL-H	ATP212-S-TL-H-FL
ATP212-TL-H	ATP212-TL-H-FL
ATP213-TL-H	ATP213-TL-H-FL
ATP214-TL-H	ATP214-TL-H-FL
ATP216-TL-H	ATP216-TL-H-FL
ATP218-TL-H	ATP218-TL-H-FL
ATP301-TL-H	ATP301-TL-H-FL
ATP302-TL-H	ATP302-TL-H-FL
ATP401-TL-H	ATP401-TL-H-FL
ATP404-H-TL-H	ATP404-H-TL-H-FL
ATP404-TL-H	ATP404-TL-H-FL
ATP404-TL-HQ	ATP404-TL-HQ-FL
ATP405-TL-H	ATP405-TL-H-FL
ATP405-TL-HX	ATP405-TL-HX-FL
ATP602-TL-H	ATP602-TL-H-FL
ATP613-TL-H	ATP613-TL-H-FL
SMA3101-TL-E	SMA3101-TL-E-FL
SMA3103-TL-E	SMA3103-TL-E-FL
SMA3107-TL-E	SMA3107-TL-E-FL
SMA3117-TL-H	SMA3117-TL-H-FL
SMA5101-TL-H	SMA5101-TL-H-FL



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**List of affected General Parts:**

2SA1370E-AE	ATP104-TL-H	ATP214-TL-H
2SA1371E	ATP106-TL-H	ATP216-TL-H
2SA2127	ATP107-TL-H	ATP218-TL-H
2SA2127-AE	ATP108-TL-H	ATP301-TL-H
2SC3468E-AE	ATP112-TL-H	ATP302-TL-H
2SC6043	ATP112-TL-HX	ATP401-TL-H
2SC6043-AE	ATP113-TL-H	ATP404-H-TL-H
2SD1207S	ATP114-TL-H	ATP404-TL-H
2SD1207S-AE	ATP201-TL-H	ATP213-TL-H
2SD1207T	ATP201-V-TL-H	ATP405-TL-H
2SD1207T-AE	ATP202-TL-H	ATP405-TL-HX
ATP103-TL-H	ATP203-TL-H	ATP602-TL-H
2SD438E-MP	ATP204-TL-H	ATP613-TL-H
2SD438E-MP-AE	ATP206-TL-H	SMA3101-TL-E
ATP101-TL-H	ATP207-TL-H	SMA3103-TL-E
ATP101-TL-HX	ATP208-TL-H	SMA3107-TL-E
ATP101-V-TL-H	ATP212-S-TL-H	SMA3117-TL-H
ATP102-TL-H	ATP212-TL-H	SMA5101-TL-H

**List of affected Customer Specific Parts:**

2SD1207T-OMR-AE  
ATP404-TL-HQ