



Jan 30<sup>th</sup>, 2013

To: Valued Customer

From: Littelfuse Product Management

Subject: Removal of Hot Melt Adhesive from 3AG, 3AB and 5x20 Glass Fuse

With regards to the above reference, Littelfuse would like to inform you that we will no longer use the hot melt adhesive (HMA) in the assembly process. Historically, HMA is used primarily on glass fuse during soldering process to enhance the cap and body bonding. However, such material tends to have negative impact on solderability.

The above-mentioned change is proposed to help improve the fuse soldering quality and reduce customer open fuse complaints. The internal evaluation tests have shown improved fuse solderability and equivalent level of cap retention strength with HMA removed. Cap retention is established primarily by the solder inside of fuse.

Please see the attached Excel file for the affected part numbers in 3AG, 3AB, and 5x20 Glass product families manufactured with internal soldering process.

Going forward / Timeframe

We would make the change internally in mass production on a running change basis on April 30<sup>th</sup>, 2013. The affected fuse part numbers will not contain HMA from this date and onwards.

Please let us know should you have further queries.

Best Regards,  
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800 E. Northwest Highway Des Plaines, IL 60016

## Product/Process Change Notice (PCN)

**PCN#:** 30012013    **Date:** January 30<sup>th</sup>, 2013

**Product Identification:**

See attached Excel list

**Implementation Date for Change:**

April 30<sup>th</sup>, 2013

### Contact Information

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### Category of Change:

- Assembly Process
- Data Sheet
- Technology
- Discontinuance/Obsolescence
- Equipment
- Manufacturing Site
- Raw Material
- Testing
- Fabrication Process
- Other: \_\_\_\_\_

### Description of Change:

Removal of hot melt adhesive from 3AG, 3AB and 5x20 Glass fuse.

### Important Dates:

- Qualification Samples Available:  Last Time Buy:
- Final Qualification Data Available:
- Date of Final Product Shipment:

### Method of Distinguishing Changed Product

- Product Mark,
- Date Code, April 30, 2013
- Other,

### Demonstrated or Anticipated Impact on Form, Fit, Function or Reliability:

NIL

### LF Qualification Plan/Results:

Available upon request.

**Customer Acknowledgement of Receipt:** Littelfuse requests you acknowledge receipt of this PCN. In your acknowledgement, you can grant approval or request additional information. Littelfuse will assume the change is acceptable if no acknowledgement is received within 30 days of this notice. Lack of any additional response within 90 days of PCN issuance further constitutes acceptance of the change.