

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, Roger Huang Global Product Manager Electronics Business Unit Suzhou Littelfuse OVS +86 1358488896 Rhuang@Littelfuse.com