**PRODUCT / PROCESS CHANGE NOTIFICATION**

<table>
<thead>
<tr>
<th>To Be Completed By Change Initiator</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE: 10/2/13</td>
</tr>
</tbody>
</table>

PRODUCT REFERENCE: General process change announcement, RADHard MOSFET devices

**TYPE OF CHANGE:** □ MAJOR □ MINOR □ EDITORIAL □ PROCESS □ PRODUCT

**DETAILED DESCRIPTION OF CHANGE:**

This PCN serves to announce a change in the die attach reflow and assembly methods at IR HiRel. The changes are as follows:

**From:**
- Convection reflow system
- Manual die assembly
- 92.5Pb / 5In / 2.5Ag solder
- Manual process method

**To:**
- Conductive reflow systems
- Automated die assembly (die bond option)
- 95Pb / 5Sn solder
- Automated process method

**DETAILED REASON FOR CHANGE:**

The new die attach and assembly methods were developed in order to enhance IR HiRel parts performance and reliability by effectively reducing process variation, in particular in the die solder reflow coverage (voiding), handling and die placement accuracy.
**EFFECTIVITY DATE:**
Transitional change, starting lot date code DC 1313 (SMD type) DC 1332 (TO-x type)

**IMPACT OF CHANGE:**
No change to fit, form and function at the next stage assembly. Form change internal to the parts is linked with the new solder type use.

**QUALIFICATION:**
IR has successfully qualified the new die attach methods through JANS guidelines. The changes and qualification are also being coordinated via the DLA office. The qualification is based on package construction / type. The first packages being qualified included SMD-0.5 and TO-254 types.

Change Initiator:
David Doiron  
Manager, Process Development

Paul Hebert  
Director, Quality Assurance