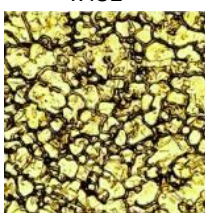
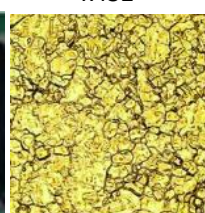


|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                               |                               |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--|
| Title of Change:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Information of different brightness surface of Ni/Cu in DBC due to different shape of copper grain in raw copper material of DBC                              |                               |  |
| Effective date:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 04 Jan 2022                                                                                                                                                   |                               |  |
| Contact information:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Contact your local onsemi Sales Office or <a href="mailto:Noriaki.Sakamoto@onsemi.com">Noriaki.Sakamoto@onsemi.com</a>                                        |                               |  |
| Type of notification:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | This Product Bulletin is for notification purposes only.<br>onsemi will proceed with implementation of this change upon publication of this Product Bulletin. |                               |  |
| Change Category:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Assembly Change, Package form (cosmetic) difference point                                                                                                     |                               |  |
| Change Sub-Category(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | To be sure brightness difference of Ni/Cu surface in DBC is good product                                                                                      |                               |  |
| Sites Affected:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                               |                               |  |
| onsemi Sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                               | External Foundry/Subcon Sites |  |
| onsemi Vietnam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                               | None                          |  |
| Description and Purpose:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                               |                               |  |
| The purpose of this PB is to advise customers of a cosmetic difference in brightness that could be observed due to different copper grain shape of the raw copper material of DBC. This brightness difference is within surface roughness spec and there is no quality impact. This is a cosmetic difference only.                                                                                                                                                                                                                                       |                                                                                                                                                               |                               |  |
| Two different brightness surfaces are following.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                               |                               |  |
| <div><div>Even brightness Ni/Cu surface</div><div></div></div> <div><div>x432</div><div></div></div> <div><div>Uneven brightness Ni/Cu surface</div><div></div></div> <div><div>x432</div><div></div></div> |                                                                                                                                                               |                               |  |
| Reliability Data Summary:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                               |                               |  |
| Reliability is no impacted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                               |                               |  |
| Electrical Characteristics Summary:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                               |                               |  |
| Electrical characteristics are not impacted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                               |                               |  |
| List of Affected Standard Parts:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                               |                               |  |
| <b>Note:</b> Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the <a href="#">PCN Customized Portal</a> .                                                                                                                                                                                                                                                                                         |                                                                                                                                                               |                               |  |
| NFAQ0560R43T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NFAQ1560R43TL                                                                                                                                                 | NFAQ1560R43T                  |  |
| NFAQ0860L36T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NFAQ0860L33T                                                                                                                                                  | NFAQ1060L36T                  |  |
| NFAQ1060L33T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                               |                               |  |