| IPC<br>ASSOCIATION<br>ELECTRONIC | Material Composition Declaration © Copyright 2005. IPC, Bannockburn, Illinois. All rights reserved under both international and Pan-American copyright conventions. |                           |                           |                   |                         | This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility. |   |  |           |                                 |                                 |                          |            |                   |      |  |
|----------------------------------|---|---------------------------|---------------------------|-------------------|-------------------------|---|---|--|-----------|---------------------------------|---------------------------------|--------------------------|------------|-------------------|------|--|
| 1752-21.1                        |   |                           |                           |                   | Form Type<br>Distribute | Declaration Class * Class 6 - RoHS Yes/No, Homogeneous Mater  |   |  |           |                                 | eous Materia                    | ials and Mfg Information |            |                   |      |  |
| Supplie                          | r Information   |                           |                           |                   |                         |   |   |  |           |                                 |                                 |                          |            |                   |      |  |
| Company name* Comp               |   |                           |                           | Company unique ID |                         |   | Unique ID Authority                     |  |           |                                 |                                 | Response Date*           |            |                   |      |  |
| onsemi                           |   |                           |                           |                   |                         |   |   |  |           |                                 |                                 |                          | 2024-09-01 |                   |      |  |
| Contact N                        | lame  |                           | Title - Contact           |                   |                         | ]   | Phone - Contact*                        |  |           |                                 |                                 | Email - Contact*         |            |                   |      |  |
| Product-l                        | Env-Stewards  |                           | Product Enviro Compliance |                   |                         |   | NA                                      |  |           |                                 | Product-Env-Stewards@onsemi.com |                          |            |                   |      |  |
| Authorize                        | ed Representative*  |                           | Title - Representative    |                   |                         | ]   | Phone - Representative*                 |  |           |                                 | Email - Representative*         |                          |            |                   |      |  |
| Product-l                        | Env-Stewards  | Product Enviro Compliance |                           |                   |                         | NA  |   |  |           | Product-Env-Stewards@onsemi.com |                                 |                          |            |                   |      |  |
|                                  | Requester Item Number Mfr Item  |                           | Number Mfr Item Name      |                   |                         |   | Effective Date Version Manufacturing Si |  | ring Site | V                               | Veight*                         | UOM                      | Unit Type  |                   |      |  |
|                                  |   | BC547BTA                  |                           | NPN/50V/100mA     |                         |   | 2024-09-01                              |  | (         | CNF                             |                                 | 2                        | 19.001     | mg                | Each |  |
| Manufa                           | cturing Proccess Informat   | ion                       |                           |                   |                         |   |   |  |           |                                 |                                 |                          |            |                   |      |  |
|                                  | Terminal Plating / Grid Array Material To   |                           | Terminal Base Alloy J-STD |                   | -STD-020 MSI            | L Rating  | Peak Process Body Temp                  |  | Temperatu | ature Max Time at Peak T        |                                 | Temperatu                | ire Numb   | ber of Reflow Cyc | eles |  |
|                                  | Matte Tin (Sn) - annealed   |                           | CU Alloy NA               |                   | NA .                    |   | 0 C                                     |  | 30        |                                 | seconds 3                       |                          |            |                   |      |  |
| Comments                         | 3   |                           |                           |                   |                         |   |   |  |           |                                 |                                 |                          |            |                   |      |  |
|                                  |   |                           |                           |                   |                         |   |   |  |           |                                 |                                 |                          |            |                   |      |  |
| or more                          | information regarding material o  | composition               | please refer to           | page 3            |                         | · · · · · · · · · · · · · · · · · · ·   |   |  |           |                                 |                                 |                          |            |                   |      |  |

| RoHS Material Composition Declaration  |   |                                | Declaration Type *                              | Detail             | led                                  |  |  |  |  |  |  |
|--|---|--------------------------------|---|--------------------|--------------------------------------|--|--|--|--|--|--|
| Directive 2015/863/EU amending RoHS Directive 2011/65/EU  RoHS Definition: Quantity limit of 0.01% by mass (100 PPM) in homogeneous material for Cadmium and quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Bis(2-ethylhexyl) phthalate (DEHP), Benzyl-butyl phthalate (BBP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP).  |   |                                |   |                    |                                      |  |  |  |  |  |  |
| Please indicate whether any homogeneous material (as defined by the RoHS Directive, EU 2011/65/EU and implemented by the laws of the European Union member states) of the part identified on this form contains lead, mercury, cadmium, hexavalentchromium, polybrominated biphenyls and/or polybrominated diphenyl ethers (each a "RoHS restricted substance") in excess of the applicable quantity limit identified above. If a homogeneous material within the part contains a RoHS restricted substance inexcess of an applicable quantity limit, please indicate below which, if any, RoHS exemption you believe may apply. If the part is an assembly with lower level components, the declaration shall encompass all such components. Supplier certifies that it gathered the information it provides in this form using appropriate methods to ensure its accuracy and that such information is true and correct to the best of its knowledges and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products with European Union member state laws that implement the RoHS Directive. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its paragraph. If the Company and the Supplier have provided certifications regarding their contributions to the part, and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier have provided as part of that agreement, will be the sole and exclusivesource of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form. In the absence of such written agreement, the warranty rights and/or remedies of Supplier's Standard |   |                                |   |                    |                                      |  |  |  |  |  |  |
| RoHS Declaration * 1 - Item  | (s) does not contain RoHS restricted substa | ances per the definition above | Supplier Ac                                     | ceptance *         | Accepted                             |  |  |  |  |  |  |
| Exemption: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.  |   |                                |   |                    |                                      |  |  |  |  |  |  |
| Exemption List Version   | EL-2011/534/EU                              |                                |   |                    |                                      |  |  |  |  |  |  |
| Declaration Signature  |   |                                |   |                    |                                      |  |  |  |  |  |  |
| Instructional Complete all of the required   | fields on all neggs of this form. Calcut th |                                | a duan dawn. This will display the signature on | a Digitally sign   | the declaration (if recruired by the |  |  |  |  |  |  |
| Instructions: Complete all of the required Requester) and click on Submit Form to  |   |                                | e drop-down. This will display the signature ar | ea. Digitally sign | the declaration (if required by the  |  |  |  |  |  |  |

## **Homogeneous Material Composition Declaration for Electronic Products**

SubItem Instructions: The presence of any JIG Level A or B substances must be declared. [1] indicate the subpart in which the substance is located, [2] provide a description of the homogeneous material [3], enter the weight of the homogeneous material.

Substance Instructions: [A] select the Level (JIG A, JIG B, Requester or Supplier) [B] select the substance category (JIG or Requester) or enter a value (Supplier). [C] select the substance (JIG) or enter the substance and CAS (Other). [D] select a RoHS exemption, if applicable [E] enter the weight of the substance or the PPM concentration [F] Optionally enter the positive (+) and negative (-) tolerance in percent (Note: percent tolerance values are expected to cover a 3 sigma range of distribution unless otherwise noted).

| Homogeneous Material | mogeneous Material Weight U |    | Level    | Substance                  | CAS              | Exempt | Weight   | Unit of Measure |
|----------------------|-----------------------------|----|----------|----------------------------|------------------|--------|----------|-----------------|
| Die                  | 0.075                       | mg | Supplier | Silicon (Si)               | 7440-21-3        |        | 0.075    | mg              |
| Lead Frame           | 101.0                       | mg | Supplier | Silver (Ag)                | 7440-22-4        |        | 0.0101   | mg              |
|                      |                             |    | Supplier | Iron (Fe)                  | 7439-89-6        |        | 0.101    | mg              |
|                      |                             |    | Supplier | Copper (Cu)                | 7440-50-8        |        | 100.8586 | mg              |
|                      |                             |    | Supplier | Phosphorus (P)             | 7723-14-0        |        | 0.0303   | mg              |
| Mold Compound-Black  | 112.0                       | mg |          | Phenol Resin               | proprietary data |        | 11.2     | mg              |
|                      |                             |    | Supplier | Carbon Black (C)           | 1333-86-4        |        | 1.12     | mg              |
|                      |                             |    | Supplier | Fused Silica (SiO2)        | 60676-86-0       |        | 86.24    | mg              |
|                      |                             |    | Supplier | Ortho-Cresol Novolac Resin | 29690-82-2       |        | 13.44    | mg              |
| Plating              | 5.85                        | mg | Supplier | Tin (Sn)                   | 7440-31-5        |        | 5.85     | mg              |
| Wire Bond - Au       | 0.076                       | mg | Supplier | Gold (Au)                  | 7440-57-5        |        | 0.076    | mg              |