|                                                 | Material Composit<br>© Copyright 2005. IPC, J<br>international and Pan-An | Bannockb   | urn, Illinois. A          | ll rights reserved untions.   | under both              | This docum<br>level parts, | ent is a decla                                 | ration of | the substance passes all low | s within the<br>er level mate   | manufactur<br>erials for wl         | er listed ite<br>hich the ma | em. Note:<br>anufactur | if the item is an a er has engineering | ssembly with lower<br>responsibility. |  |
|-------------------------------------------------|---------------------------------------------------------------------------|------------|---------------------------|-------------------------------|-------------------------|----------------------------|------------------------------------------------|-----------|------------------------------|---------------------------------|-------------------------------------|------------------------------|------------------------|----------------------------------------|---------------------------------------|--|
|                                                 |                                                                           |            |                           |                               | Form Type<br>Distribute |                            |                                                |           |                              |                                 | eous Materia                        | ials and Mfg Information     |                        |                                        |                                       |  |
| Supplier Informat                               | ion                                                                       |            |                           |                               |                         |                            |                                                |           |                              |                                 |                                     |                              |                        |                                        |                                       |  |
| Company name* C                                 |                                                                           |            | Company unique ID         |                               |                         | Unique ID Authority        |                                                |           |                              |                                 | Response Date*                      |                              |                        |                                        |                                       |  |
| onsemi                                          |                                                                           |            |                           |                               |                         |                            |                                                |           |                              | 2024-04-28                      |                                     |                              |                        |                                        |                                       |  |
| Contact Name                                    |                                                                           |            | Title - Contact           |                               |                         | Phone - Contact*           |                                                |           |                              | Email - Contact*                |                                     |                              |                        |                                        |                                       |  |
| Product-Env-Stewards                            |                                                                           |            | Product Enviro Compliance |                               |                         | NA                         |                                                |           |                              | Product-Env-Stewards@onsemi.com |                                     |                              |                        |                                        |                                       |  |
| Authorized Representative*                      |                                                                           |            | Title - Representative    |                               |                         | Phone - Representative*    |                                                |           |                              | Email - Representative*         |                                     |                              |                        |                                        |                                       |  |
| Product-Env-Stewards                            |                                                                           |            | Product Enviro Compliance |                               |                         | NA                         |                                                |           |                              | Product-Env-Stewards@onsemi.com |                                     |                              |                        |                                        |                                       |  |
| Requester It                                    | Requester Item Number Mfr Iten                                            |            | n Number Mfr Item Name    |                               |                         |                            | Effective D                                    | ate Vei   | rsion                        | Manufacturing Site              |                                     | V                            | /eight*                | UOM                                    | Unit Type                             |  |
|                                                 |                                                                           | MBRS540T3G |                           | SCHOTTKY BARRIER RECTIFIE     |                         | FIE                        | 2024-04-28                                     |           |                              | VN5                             |                                     | 2                            | 52.0                   | mg                                     | Each                                  |  |
| Manufacturing Pr                                | occess Information                                                        | l          |                           | •                             |                         |                            | •                                              |           |                              |                                 |                                     |                              |                        |                                        |                                       |  |
| Terminal Plating / Grid Array Material Terminal |                                                                           |            | erminal Base A            | se Alloy J-STD-020 MSL Rating |                         |                            | Peak Process Body Temperature Max Time at Peak |           |                              | me at Peak                      | Temperature Number of Reflow Cycles |                              |                        |                                        |                                       |  |
| Matte Tin (Sn) - annealed CU Alloy              |                                                                           |            | U Alloy                   |                               | 1                       |                            | 260                                            |           | С                            | 30                              |                                     | second                       | s <b>3</b>             |                                        |                                       |  |
| Comments                                        |                                                                           |            |                           |                               |                         |                            |                                                |           |                              |                                 |                                     |                              |                        |                                        |                                       |  |
| level 1 - maximum time                          | e at peak temperature d                                                   | luring sol | dering is 10-3            | 0 seconds                     |                         |                            |                                                |           |                              |                                 |                                     |                              |                        |                                        |                                       |  |
| For more information                            | regarding material com                                                    | position p | please refer to           | page 3                        |                         |                            |                                                |           |                              |                                 |                                     |                              |                        |                                        |                                       |  |

| RoHS Material Composition Declaration                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   | Declaration Type *                                                                                                                                                                                                                                            | Detailed                                                                                                                                                                                                                                                                                                                                                |  |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| Directive 2015/863/EU amending RoHS<br>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). |                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| cadmium, hexavalentchromium, polybromina<br>contains a RoHS restricted substance inexces<br>encompass all such components. Supplier cer<br>as of the date that Supplier completes this for<br>Company acknowledges that Supplier may h<br>independently verified information provided<br>certification in this paragraph. If the Company | ated biphenyls and/or polybrominated dip<br>s of an applicable quantity limit, please in<br>iffies that it gathered the information it pr<br>m.Supplier acknowledges that Company<br>ave relied on informationprovided by oth<br>by others, Supplier agrees that, at a minir<br>and the Supplier enter into a written agr<br>esource of the Supplier's liability and the                                                          | henyl ethers (each a "RoHS restricted substa<br>ndicate below which, if any, RoHS exemption<br>ovides in this form using appropriate methoo<br>will rely on this certification in determining<br>ers in completing this form, and that Supplie<br>num, itssuppliers have provided certification<br>eement with respect to the identified part, the<br>Company's remedies for issues that arise reg | nce") in exco<br>n you believe<br>ls to ensure i<br>the compliar<br>r may not ha<br>s regarding t<br>terms and co | e may apply. If the part is an assembly with low<br>s accuracy and that such information is true an<br>ce of its products with European Union member<br>de independently verified such information. Ho<br>neir contributions to the part, and those certifica | ove. If a homogeneous material within the part<br>er level components, the declaration shall<br>d correct to the best of its knowledge and belief,<br>er state laws that implement the RoHS Directive.<br>wever, in situations where Supplier has not<br>ations are at least as comprehensive as the<br>anty rights and/or remedies provided as part of |  |  |  |  |  |  |
| RoHS Declaration * 4 - Item(                                                                                                                                                                                                                                                                                                             | s) does not contain RoHS restricted subst                                                                                                                                                                                                                                                                                                                                                                                         | ances per the definition above except for sele                                                                                                                                                                                                                                                                                                                                                     | ected exempt                                                                                                      | ions Supplier Acceptance                                                                                                                                                                                                                                      | * Accepted                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |
| Exemption: 7a: Lead in high melting temp                                                                                                                                                                                                                                                                                                 | erature type solders (i.e. lead based sol                                                                                                                                                                                                                                                                                                                                                                                         | der alloys containing 85% by weight or m                                                                                                                                                                                                                                                                                                                                                           | ore lead).                                                                                                        |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Exemption List Version                                                                                                                                                                                                                                                                                                                   | EL-2011/534/EU                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Declaration Signature                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |
| Instructions: Complete all of the required<br>Requester) and click on Submit Form to h                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                    | e drop-dowi                                                                                                       | a. This will display the signature area. Digita                                                                                                                                                                                                               | lly sign the declaration (if required by the                                                                                                                                                                                                                                                                                                            |  |  |  |  |  |  |
| Supplier Digital Signature                                                                                                                                                                                                                                                                                                               | astislav Drska                                                                                                                                                                                                                                                                                                                                                                                                                    | Le                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                   |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |

## 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.

| Homogeneous Material | Weight | Unit of Measure | Level    | Substance                                                        | CAS         | Exempt | Weight  | Unit of Measure |
|----------------------|--------|-----------------|----------|------------------------------------------------------------------|-------------|--------|---------|-----------------|
| Clip                 | 39.16  | mg              | Supplier | Iron (Fe)                                                        | 7439-89-6   |        | 0.0392  | mg              |
|                      |        |                 | Supplier | Copper (Cu)                                                      | 7440-50-8   |        | 39.1091 | mg              |
|                      |        |                 | Supplier | Phosphorus (P)                                                   | 7723-14-0   |        | 0.0117  | mg              |
| Die                  | 2.91   | mg              | Supplier | Silicon (Si)                                                     | 7440-21-3   |        | 2.91    | mg              |
| Die Attach Solder    | 2.82   | mg              | Supplier | Silver (Ag)                                                      | 7440-22-4   |        | 0.0705  | mg              |
|                      |        |                 | А        | Lead (Pb)                                                        | 7439-92-1   | 7a     | 2.6085  | mg              |
|                      |        |                 | Supplier | Tin (Sn)                                                         | 7440-31-5   |        | 0.141   | mg              |
| Lead Frame           | 74.95  | mg              | Supplier | Iron (Fe)                                                        | 7439-89-6   |        | 0.075   | mg              |
|                      |        |                 | Supplier | Copper (Cu)                                                      | 7440-50-8   |        | 74.8526 | mg              |
|                      |        |                 | Supplier | Phosphorus (P)                                                   | 7723-14-0   |        | 0.0225  | mg              |
| Mold Compound-Black  | 131.5  | mg              | Supplier | Polycondensate of 4,4'-<br>bis(methoxymethyl)biphenyl and phenol | 205830-20-2 |        | 3.2875  | mg              |
|                      |        |                 | Supplier | Triphenylphosphine                                               | 603-35-0    |        | 0.6575  | mg              |
|                      |        |                 | Supplier | Trimethoxysilylpropanethiol                                      | 4420-74-0   |        | 0.6575  | mg              |
|                      |        |                 | Supplier | 4,4'-Bis(2,3-epoxypropoxy)-3,3',5,5'-<br>tetramethylbiphenyl     | 85954-11-6  |        | 0.6575  | mg              |
|                      |        |                 | Supplier | Carbon Black (C)                                                 | 1333-86-4   |        | 1.315   | mg              |
|                      |        |                 | Supplier | Fused Silica (SiO2)                                              | 60676-86-0  |        | 118.35  | mg              |
|                      |        |                 | Supplier | Phenolic Resin (Novolac)                                         | 9003-35-4   |        | 6.575   | mg              |
| Plating              | 0.66   | mg              | Supplier | Tin (Sn)                                                         | 7440-31-5   |        | 0.66    | mg              |