## **MATERIAL DECLARATION SHEET**



| Material Number | PTVS15-058C-SH                 |     |         |  |  |  |  |
|-----------------|--------------------------------|-----|---------|--|--|--|--|
| Product Line    | Semiconductor products         |     |         |  |  |  |  |
| Compliance Date | September 1 <sup>st</sup> 2013 |     |         |  |  |  |  |
| RoHS Compliant  | Yes                            | MSL | Level 1 |  |  |  |  |



| No. | Construction       | Homogenous   | Material   | Homogenous Material/   | CASRN         | Materials Mass % | Material Mass %   | Subpart Mass % of |
|-----|--------------------|--------------|------------|------------------------|---------------|------------------|-------------------|-------------------|
|     | Element (subpart)  | Material     | Weight (g) | Substances             | if applicable |                  | of total unit wt. | total unit wt.    |
| 1   | Encapsulation      | Epoxy Resin  | 0.736600   | Bisphenol Epoxy Resin  | 1675-54-3     | 40.00            | 6.01              | 15.02             |
|     |                    |              |            | Epoxy Resin            | 25085-99-8    | 20.00            | 3.00              |                   |
|     |                    |              |            | Crystalline Silica     | 14464-46-1    | 23.00            | 3.45              |                   |
|     |                    |              |            | Brominated Epoxy Resin | 40039-93-8    | 12.00            | 1.80              |                   |
|     |                    |              |            | Iron Oxide             | 51274-00-1    | 2.00             | 0.30              |                   |
|     |                    |              |            | Titanium Oxide         | 13463-67-7    | 3.00             | 0.45              |                   |
| 2   | Electrodes         | Copper       | 2.644175   | Copper                 | 7440-50-8     | 99.10            | 53.42             | 53.91             |
|     |                    |              |            | Silver                 | 7440-22-4     | 0.40             | 0.22              |                   |
|     |                    |              |            | Other                  | -             | 0.50             | 0.27              |                   |
| 3   | Terminations       | Copper       | 1.079846   | Copper                 | 7440-50-8     | 99.50            | 21.91             | 22.02             |
| ٦   |                    |              |            | Other                  | -             | 0.50             | 0.11              |                   |
| 4   | Termination Finish | Silver       | 0.015288   | Silver                 | 7440-22-4     | 100.00           | 0.31              | 0.31              |
|     | Chip               | Silicon Die  | 0.212811   | Silicon                | 7440-21-3     | 85.34            | 3.70              | 4.34              |
| 5   |                    |              |            | Aluminium              | 7429-90-5     | 5.13             | 0.22              |                   |
| ٦   |                    |              |            | Nickel                 | 7440-02-0     | 9.09             | 0.39              |                   |
|     |                    |              |            | Gold                   | 7440-57-5     | 0.44             | 0.02              |                   |
| 6   | Die Attach         | Solder       | 0.160574   | Lead                   | 7439-92-1     | 92.50            | 3.03              | 3.27              |
|     |                    |              |            | Tin                    | 7440-31-5     | 5.00             | 0.16              |                   |
|     |                    |              |            | Silver                 | 7440-22-4     | 2.50             | 0.08              |                   |
| 7   | Die Coating        | Silicone     | 0.055570   | Polysiloxane           | 63148-62-9    | 22.11            | 0.25              | 1.13              |
|     |                    |              |            | Chromium Sesquioxide   | 1308-38-9     | 5.67             | 0.06              |                   |
|     |                    |              |            | Fumed Silica           | 112945-52-5   | 11.11            | 0.13              |                   |
|     |                    |              |            | Filler                 | trade secret  | 61.11            | 0.69              |                   |
|     |                    | Total Weight | 4.904864   |                        |               |                  |                   |                   |