

Part Number: **MMSZ52xxB-p-F (Date Code 0832+)**
Weight (mg): 10.161

p = package designator

xx= 21, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33,
34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45,
46, 48, 50, 51, 52, 54, 55, 56, 57, 58, 59

| Element | Material Group | Materials | CAS (if applicable) | Average mass homogeneous Material(%) | Percent of whole (%) | Mass (mg) | ppm Homogeneous Material | ppm overall |
|-------------------|-----------------|---------------------|---------------------|--------------------------------------|----------------------|---------------|--------------------------|----------------|
| Chip | Silicon w/Metal | Doped Silicon* | 7440-21-3 | 100.00% | 4.00 | 0.406 | 1000000 | 39957 |
| Leadframe | Alloy 42 | Fe | 7439-89-6 | 57.65% | 33.51 | 3.405 | 576500 | 193188 |
| | | Ni | 7440-02-0 | 41.00% | | | 410000 | 137393 |
| | | Mn | 7439-96-5 | 0.60% | | | 6000 | 2011 |
| | | Cr(not Cr 6+) | 7440-47-3 | 0.10% | | | 1000 | 335 |
| | | Co | 7440-48-4 | 0.50% | | | 5000 | 1676 |
| | | Si | 7440-21-3 | 0.15% | | | 1500 | 503 |
| Leadframe Plating | Silver | Silver | 7440-22-4 | 100.00% | 3.94 | 0.4 | 1000000 | 39366 |
| Bond Wire | Gold Wire | Gold | 7440-57-5 | 100.00% | 0.98 | 0.1 | 1000000 | 9842 |
| Encapsulation | KTMC-1050G | SiO2 | 60676-86-0 | 69.00% | 54.33 | 5.52 | 690000 | 374845 |
| | | Epoxy Resin | 29690-82-2 | 14.00% | | | 140000 | 76056 |
| | | Phenol Resin | 9003-35-4 | 7.00% | | | 70000 | 38028 |
| | | Mg(OH)2 | 1309-42-8 | 8.00% | | | 80000 | 43460 |
| | | C | 1333-86-4 | 0.20% | | | 2000 | 1087 |
| | | others | ---- | 1.80% | | | 18000 | 9779 |
| | | Lead Plating Finish | Matte Tin | Tin | | | 7440-31-5 | 100.00% |
| Total | | | | | 100.00 | 10.161 | | 1000000 |

Tolerance ±10%

This data is based on information provided by our suppliers. We believe it to be correct but do not routinely validate it by measurement. It is for guidance only and Diodes Inc. does not guarantee its absolute accuracy or completeness

* The Silicon Chip is doped at atomic levels with trace amounts of elements that may include Phosphorus, Boron, Arsenic, and other elements. Metalization may include Titanium, Nickel, Aluminum, Silver or Gold. These substances are not reported where their concentration is less than the minimum reportable level per the guidelines specified in the Tables of EIA JIG-101, Material Composition Declaration for Electronic Products.

This product or product family does not contain any of the following substances except as **CURRENTLY** exempted by ELV II and RoHS and reported above:

| | |
|--|--|
| Asbestos | Ozone Depleting Substances - Class I (CFCs, HBFCs, etc.) |
| Azo compounds | Ozone Depleting Substances - Class II (HCFCs) |
| Cadmium and cadmium compounds | Perfluorooctane Sulphonate (PFOS) or related compounds |
| Certain Shortchain Chlorinated Paraffins | Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) including DecaBDE |
| Chlorinated organic compounds | Polychlorinated Biphenyls (PCBs) |
| Hexavalent chromium compounds | Polychlorinated Naphthalenes (> 3 chlorine atoms) |
| Lead and lead compounds | Radioactive Substances |
| Mercury and mercury compounds | Tributyl Tin (TBT) and Triphenyl Tin (TPT) |
| Organic tin compounds | Tributyl Tin Oxide (TBTO) |

This product or product family does not contain any chemicals designated by the European Chemicals Agency (ECHA) as Substances of Very High Concern (SVHCs) under REACH. Please check the document at http://www.diodes.com/files/products_lead_free/RoHS_Product_List.pdf for the current compliance status.