DIODES INCORPORATED

Diodes Inc. Material Data Sheet
Rev: June 2008

Part Number: **MMSZ52xxBS-(p)-F**
Weight (mg): 4.9417

p = package designator
See Data Sheet

xx = 21, 23, 24, 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 Materal(%)	Percent of whole (%)	Mass (mg)	ppm Homogeneous Material	ppm overall
Chip	Silicon w/Metal	Doped Silicon*	7440-21-3	100.00%	1.16	0.0571	1000000	11555
Leadframe	Alloy 42	Fe	7439-89-6	57.65%	25.92	1.2809	576500	149430
		Ni	7440-02-0	41.00%			410000	106273
		Mn	7439-96-5	0.60%			6000	1555
		Cr(not Cr 6+)	7440-47-3	0.10%			1000	259
		Co	7440-48-4	0.50%			5000	1296
		Si	7440-21-3	0.15%			1500	389
Leadframe Plating	Silver	Silver	7440-22-4	100.00%	1.02	0.0505	1000000	10219
Bond Wire	Gold Wire	Gold	7440-57-5	100.00%	0.18	0.0089	1000000	1801
Encapsulation	KTMC1050G	SiO2	60676-86-0	69.00%	70.97	3.5069	690000	489662
		Epoxy Resin	29690-82-2	14.00%			140000	99352
		Phenol Resin	9003-35-4	7.00%			70000	49676
		Mg(OH)2	1309-42-8	8.00%			80000	56772
		C	1333-86-4	0.20%			2000	1419
		others	----	1.80%			18000	12774
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	0.76	0.0374	1000000	7568
				Total	100.00	4.9417		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 o 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
- Azo compounds
- Cadmium and cadmium compounds
- Certain Shortchain Chlorinated Paraffins
- Chlorinated organic compounds
- Hexavalent chromium compounds
- Lead and lead compounds
- Mercury and mercury compounds
- Organic tin compounds
- Ozone Depleting Substances - Class I (CFCs, HBFCs, etc.)
- Ozone Depleting Substances - Class II (HCFCs)
- Perfluorooctane Sulphonate (PFOS) or related compounds
- Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) including **DecaBDE**
- Polychlorinated Biphenyls (PCBs)
- Polychlorinated Naphthalenes (> 3 chlorine atoms)
- Radioactive Substances
- Tributyl Tin (TBT) and Triphenyl Tin (TPT)
- Tributyl Tin Oxide (TBTO)

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