MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)
M2S050	FG484(23x23mm)	2.34

Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	38.90	Silica	60676-86-0	0.8438	92.7
		Resin	Proprietary	0.0455	5
		Metal Hydroxide	Proprietary	0.0182	2
		Carbon Black	1333-86-4	0.0027	0.3
				0.91029	100
SUBSTRATE	35.34	Bismaleimide/Triazine	13676-54-5	0.5429	65.65
		Copper (Cu)	7440-50-8	0.2642	31.95
		Gold (Au)	7440-57-5	0.0032	0.385
		Nickel (Ni)	7440-02-0	0.0167	2.015
				0.8270	100
DIE	2.05	Silicon	7440-21-3	0.0479	100
				0.0479	100
DIE ATTACH EPOXY	0.31	Silver	7440-22-4	0.0055	76
		Epoxy Resin	Proprietary	0.0017	24
				0.0072	100
SOLDER BALL	21.88	Tin	7440-31-5	0.3226	63
		Lead	7439-92-1	0.1895	37
				0.5121	100
GOLD WIRE	1.52	Gold	7440-57-5	0.0355	99.99
		Doping	Proprietary	0.0000	0.01
				0.0355	100
				2.3400	

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Revision No.	**Date**	**Description of Change**
	2/12/2014	Original release

MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)
M2S050	FCS325(11x11mm)	0.2319

Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	28.75	Silica A	60676-86-0	0.0473	71.00
		Silica B	7631-86-9	0.0050	7.50
		Resin	Proprietary	0.0090	13.50
		Carbon Black	1333-86-4	0.0003	0.50
		Others	Proprietary	0.0050	7.50
				0.06666	100.00
SUBSTRATE	35.49	Resin	Proprietary	0.0201	24.44
		Glass Fiber	65997-17-3	0.0134	16.31
		Copper (Cu)	7440-50-8	0.0449	54.55
		Tin (Sn)	7440-31-5	0.0017	2.05
		Others	Proprietary	0.0022	2.65
				0.0823	100.00
DIE	8.13	Silicon	7440-21-3	0.0188	100.00
				0.0188	100.00
UNDERFILL	3.38	Silica, vitreous	60676-86-0	0.0051	65.00
		p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	0.0008	10.00
		Bisphenol F epoxy resin	9003-36-5	0.0008	10.00
		Bisphenol A epoxy resin	25068-38-6	0.0003	4.00
		Other aliphatic amine compounds	Proprietary	0.0005	7.00
		Carbon Black	1333-86-4	0.0001	1.00
		Proprietary Additives	Proprietary	0.0002	3.00
				0.0078	100.00
SOLDER BALL	17.42	Tin (Sn)	7440-31-5	0.0255	63.00
		Lead (Pb)	7439-92-1	0.0149	37.00
				0.0404	100.00
BUMP	6.83	Tin (Sn)	7440-31-5	0.0155	97.70
		Silver (Ag)	7440-22-4	0.0004	2.30
				0.0158	100.00
				0.2319	

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Revision No.	**Date**	**Description of Change**
1	2015/11/10	Original release

MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)
M2S050	FG896(31x31mm)	4.08

Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	39.63	Silica	60676-86-0	1.4293	88.5
		Resin	Proprietary	0.1857	11.5
		Metal Hydroxide	Proprietary	0.0000	0
		Carbon Black	1333-86-4	0.0000	0
				1.61508	100
SUBSTRATE	36.01	Bismaleimide/Triazine	13676-54-5	0.8220	56
		Copper (Cu)	7440-50-8	0.6146	41.87
		Gold (Au)	7440-57-5	0.0053	0.36
		Nickel (Ni)	7440-02-0	0.0260	1.77
				1.4678	100
DIE	1.17	Silicon	7440-21-3	0.0478	100
				0.0478	100
DIE ATTACH EPOXY	0.08	Silver	7440-22-4	0.0026	78
		Epoxy Resin	Proprietary	0.0007	22
				0.0033	100
SOLDER BALL	21.87	Tin	7440-31-5	0.5615	63
		Lead	7439-92-1	0.3298	37
				0.8913	100
GOLD WIRE	1.23	Gold	7440-57-5	0.0503	99.99
		Doping	Proprietary	0.0000	0.01
				0.0503	100
				4.0756	

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Revision No.	**Date**	**Description of Change**
	11/10/2015	Original release

MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)
M2S050	VF400	0.9744

Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	36.33	Silica	60676-86-0	0.2974	84
		Resin	Proprietary	0.0559	15.8
		Carbon Black	1333-86-4	0.0007	0.2
				0.35399	100
SUBSTRATE	44.69	Bismaleimide/Triazine	13676-54-5	0.2859	65.65
		Copper (Cu)	7440-50-8	0.1391	31.95
		Gold (Au)	7440-57-5	0.0017	0.385
		Nickel (Ni)	7440-02-0	0.0088	2.015
				0.4355	100
DIE	4.91	Silicon	7440-21-3	0.0479	100
				0.0479	100
DIE ATTACH EPOXY	0.56	Silver	7440-22-4	0.0041	76
		Epoxy resin	Proprietary	0.0013	24
				0.0054	100
SOLDER BALL	12.10	Tin	7440-31-5	0.0743	63
		Lead	7439-92-1	0.0436	37
				0.1179	100
GOLD WIRE	1.41	Gold	7440-57-5	0.0137	99.99
		Doping	Proprietary	0.0000	0.01
				0.0137	100
				0.9744	

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Revision No.	Date	Description of Change
1	2014/6/25	Original release
2	2015/11/9	Add M2S060, M2GL060