



MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL060	FCS325(11x11mm)	0.2319			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	25.32	Silica A	60676-86-0	0.0417	71.00
		Silica B	7631-86-9	0.0044	7.50
		Resin	Proprietary	0.0079	13.50
		Carbon Black	1333-86-4	0.0003	0.50
		Others	Proprietary	0.0044	7.50
				0.05871	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	7.99	Silicon	7440-21-3	0.0185	100.00
				0.0185	100.00
UNDERFILL	3.32	Silica, vitreous	60676-86-0	0.0050	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
				0.0077	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	10.45	Tin (Sn)	7440-31-5	0.0237	97.70
		Silver (Ag)	7440-22-4	0.0006	2.30
				0.0242	100.00
				0.2319	

Disclaimer: Microsemi believes this information to be correct, but cannot guarantee its completeness or accuracy. The information is based on data received from sources outside our company.

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



MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL060	FG484(23x23mm)	2.34			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	38.94	Silica	60676-86-0	0.8447	92.7
		Resin	Proprietary	0.0456	5
		Metal Hydroxide	Proprietary	0.0182	2
		Carbon Black	1333-86-4	0.0027	0.3
				0.91121	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	2.01	Silicon	7440-21-3	0.0471	100
				0.0471	100
DIE ATTACH EPOXY	0.30	Silver	7440-22-4	0.0054	76
		Epoxy Resin	Proprietary	0.0017	24
				0.0071	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	

Disclaimer: Microsemi believes this information to be correct, but cannot guarantee its completeness or accuracy. The information is based on data received from sources outside our company.

Revision No.	Date	Description of Change
1	2/12/2014	Original release
2	11/9/2015	Add M2S060, M2GL060



MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL060	FG676 (27x27mm)	2.8689			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	37.42	Silica	60676-86-0	0.9694	88.5
		Resin	Proprietary	0.1260	11.5
		Metal Hydroxide	Proprietary	0.0000	0
		Carbon Black	1333-86-4	0.0000	0
				1.09532	100
SUBSTRATE	38.87	Bismaleimide/Triazine	13676-54-5	0.6236	55.92
		Copper (Cu)	7440-50-8	0.4662	41.81
		Gold (Au)	7440-57-5	0.0041	0.37
		Nickel (Ni)	7440-02-0	0.0211	1.9
				1.1150	100
DIE	2.40	Silicon	7440-21-3	0.0471	100
				0.0471	100
DIE ATTACH EPOXY	0.24	Silver	7440-22-4	0.0055	78
		Epoxy resin	Proprietary	0.0015	22
				0.0070	100
SOLDER BALL	19.73	Tin	7440-31-5	0.3567	63
		Lead	7439-92-1	0.2095	37
				0.5662	100
GOLD WIRE	1.33	Gold	7440-57-5	0.0379	99.0453
		Doping	Proprietary	0.0004	0.9547
				0.0383	100
				2.8689	

Note: Microsemi believes this information to be correct, but cannot guarantee its completeness or accuracy as it is based on data received from sources outside our company.



MATERIAL DECLARATION DATA SHEET

Device Name	Package Type	Pkg Wt (g)			
M2GL060	VF400	0.9744			
Material Breakdown of Component	Material Breakdown (%)	Substance Name	CAS No.	Weight (g)	Substance Mass (%)
MOLD COMPOUND	36.42	Silica	60676-86-0	0.2981	84
		Resin	Proprietary	0.0561	15.8
		Carbon Black	1333-86-4	0.0007	0.2
				0.35488	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	4.83	Silicon	7440-21-3	0.0471	100
				0.0471	100
DIE ATTACH EPOXY	0.55	Silver	7440-22-4	0.0041	76
		Epoxy resin	Proprietary	0.0013	24
				0.0053	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	

Disclaimer: Microsemi believes this information to be correct, but cannot guarantee its completeness or accuracy. The information is based on data received from sources outside our company.

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