



B1xx-p-F B2xxA-p-F B3xxA-p-F SMAZxxx

Part Number: SMA OJ Devices p = package designator
Weight (mg): 64 DATE CODE LIMITED
See Data Sheet

Element	Material Group	Materials	CAS (if applicable)	Average mass homogeneous Materal(%)			ppm Homogeneous Material	ppm overall
Chip	Silicon w/Metal	Doped Silicon*	7440-21-3	98.90%	2.97	1.9	989000	29361
		Ni	7440-02-0	1.10%			11000	327
Solder Paste	RoHS Exempt	Pb	7439-92-1	92.50%	4.00	2.56	925000	37000
	High	Sn	7440-31-5	5.00%			50000	2000
	Temperature	Ag	7440-22-4	2.50%			25000	1000
	Copper Alloy	Cu (99.95%)	7440-50-8	99.95%	41.56	26.6	999500	415417
Leadframe & Clip		Zn (0.004%)	7440-66-6	0.01%			60	25
		Fe (0.01%)	7439-89-6	0.01%			100	42
		P (0.034%)	7723-14-0	0.03%			340	141
	KL-G100S	Silica Fused (10% ~30%)	60676-86-0	30.00%	50.47		300000	151406
		Silicon dioxide(40%~60%)	7631-86-9	52.50%			525000	264961
Encapsulation		Epoxy resin.(2% ~10%)	N/A	6.00%		32.3	60000	30281
		Phenolic Resin(2% ~10%)	N/A	6.00%		32.3	60000	30281
		Carbon black(0.1%-1%)	1333-86-4	0.50%			5000	2523
		Flame Retardant(<5%)	N/A	5.00%			50000	25234
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	1.00	0.64	1000000	10000
	•		•	Total	100.00	64.00		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. See the applicable Data Sheet for any Date Code limits.

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 Organic tin compounds

Antimony Compounds
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)

Halogens Polychlorinated Naphthalenes (> 3 chlorine atoms)

Hexavalent chromium compounds Radioactive Substances

Lead and lead compounds
Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Mercury and mercury compounds
Tributyl Tin Oxide (TBTO)

REACH SVHCs:

Anthracene 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)
4,4'- Diaminodiphenylmethane Bis (2-ethyl(hexyl)phthalate) (DEHP)

Dibutyl phthalate Hexabromocyclododecane (HBCDD)

Cyclododecane Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
Cobalt dichloride Bis(tributyltin)oxide

 Cobalt dichloride
 Bis(tributylltin)oxide

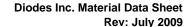
 Diarsenic pentaoxide
 Lead hydrogen arsenate

 Diarsenic trioxide
 Triethyl arsenate

 Sodium dichromate, dihydrate
 Benzyl butyl phthalate

RoHS Exemption 7a for Pb in High Temperature, High %Pb in Solder is applied

^{*} 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, <u>Material Composition Declaration for Electronic Products</u>.





B1xxB-p-F B2xx-p-F B3xxB-p-F

Part Number: SMB OJ Devices p = package designator
Weight (mg): 93 DATE CODE LIMITED
See Data Sheet

000 2 4 (4 0 1 1 0 1)								
Element	Material Group	Materials	CAS (if applicable)	Average mass homogeneous Materal(%)		Mass (mg)	ppm Homogeneous Material	ppm overall
Chip	Silicon w/Metal	Doped Silicon*	7440-21-3	98.90%	4.95	4.6	989000	48918
		Ni	7440-02-0	1.10%			11000	544
Solder Paste	RoHS Exempt	Pb	7439-92-1	92.50%	2.51	2.33	925000	23175
	High	Sn	7440-31-5	5.00%			50000	1253
	Temperature	Ag	7440-22-4	2.50%			25000	626
	Copper Alloy	Cu (99.95%)	7440-50-8	99.95%		40.48	999500	435051
Leadframe & Clip		Zn (0.004%)	7440-66-6	0.01%	43.53		60	26
		Fe (0.01%)	7439-89-6	0.01%			100	44
		P (0.034%)	7723-14-0	0.03%			340	148
	KL-G100S	Silica Fused (10% ~30%)	60676-86-0	30.00%	48.02		300000	144065
		Silicon dioxide(40%~60%)	7631-86-9	52.50%			525000	252113
Encapsulation		Epoxy resin.(2% ~10%)	N/A	6.00%		44.66	60000	28813
		Phenolic Resin(2% ~10%)	N/A	6.00%		44.00	60000	28813
		Carbon black(0.1%-1%)	1333-86-4	0.50%			5000	2401
		Flame Retardant(<5%)	N/A	5.00%			50000	24011
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	1.00	0.93	1000000	10000
•	•			Total	100.00	93.00		1000000

Tolerance ±10%

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Asbestos Organic tin compounds

Antimony Compounds

Ozone Depleting Substances - Class I (CFCs, HBFCs, etc.)

Azo compounds

Ozone Depleting Substances - Class II (HCFCs)

Cadmium and cadmium compounds

Perfluoroctane Sulphonate (PFOS) or related compounds

Certain Shorthain Chlorinated Paraffins Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) including DecaBDE

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Lead and lead compounds
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Mercury and mercury compounds
Tributyl Tin Oxide (TBTO)

REACH SVHCs:

Anthracene 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) 4,4'- Diaminodiphenylmethane Bis (2-ethyl(hexyl)phthalate) (DEHP)

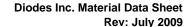
Dibutyl phthalate Hexabromocyclododecane (HBCDD)

Cyclododecane Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)

Cobalt dichloride Bis(tributyltin)oxide
Diarsenic pentaoxide Lead hydrogen arsenate
Diarsenic trioxide Triethyl arsenate
Sodium dichromate, dihydrate Benzyl butyl phthalate

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B3xx-p-F B5xxC-p-F

Part Number: SMC OJ Devices p = package designator
Weight (mg): 210 DATE CODE LIMITED
See Data Sheet

Element	Material Group	Materials	CAS (if applicable)	Average mass homogeneous Materal(%)		Mass (mg)	ppm Homogeneous Material	ppm overall
Chip	Silicon w/Metal	Doped Silicon*	7440-21-3	98.90%	4.95	10.4	989000	48979
		Ni	7440-02-0	1.10%			11000	545
Solder Paste	RoHS Exempt	Pb	7439-92-1	92.50%	2.00	4.2	925000	18500
	High	Sn	7440-31-5	5.00%			50000	1000
	Temperature	Ag	7440-22-4	2.50%			25000	500
	Copper Alloy	Cu (99.95%)	7440-50-8	99.95%	42.05	88.3	999500	420266
Leadframe & Clip		Zn (0.004%)	7440-66-6	0.01%			60	25
		Fe (0.01%)	7439-89-6	0.01%			100	42
		P (0.034%)	7723-14-0	0.03%			340	143
	KL-G100S	Silica Fused (10% ~30%)	60676-86-0	30.00%	50.00	105	300000	150000
		Silicon dioxide(40%~60%)	7631-86-9	52.50%			525000	262500
Encapsulation		Epoxy resin.(2% ~10%)	N/A	6.00%			60000	30000
		Phenolic Resin(2% ~10%)	N/A	6.00%			60000	30000
		Carbon black(0.1%-1%)	1333-86-4	0.50%			5000	2500
		Flame Retardant(<5%)	N/A	5.00%			50000	25000
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	1.00	2.1	1000000	10000
	•			Total	100.00	210.00		1000000

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