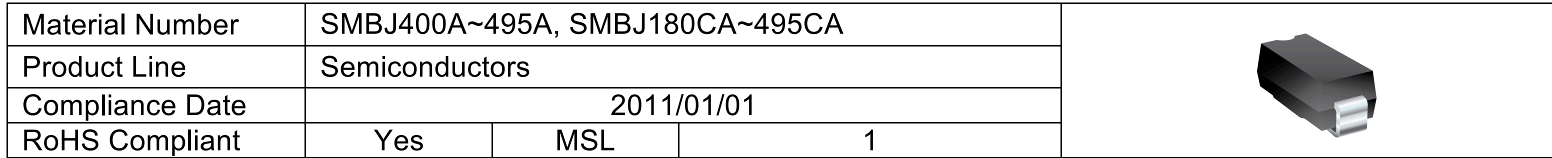
MATERIAL DECLARATION SHEET



Material Number	SMBJ400A~495A, SMBJ180CA~495CA		
Product Line	Semiconductors		
Compliance Date	2011/01/01		
RoHS Compliant	Yes	MSL	1

This Document was updated on: 2015/02/09

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Dice	Silicon	4.479	Silicon	7440-21-3	60.18	2.8976	4.815
				Phosphorus	7723-14-0	0.01	0.0005	
				Boron	7440-42-8	0.01	0.0005	
				Nickel	7440-02-0	14.80	0.7126	
				Lead-containing glass	7439-92-1	12.50	0.6019	
				Silicon dioxide	7631-86-9	10.00	0.4815	
				Aluminum oxide	1344-28-1	2.50	0.1204	
2	High-melting point Solder paste	solder paste	3.02	Tin	7440-31-5	5.00	0.1623	3.247
				Lead	7439-92-1	92.50	3.0035	
				Silver	7440-22-4	2.50	0.0812	
3	Lead frame / Leads / Disc	N/A	33.50	Copper	7440-50-8	99.80	35.946	36.018
				Iron	7439-89-6	0.15	0.054	
				Phosphorus	7723-14-0	0.05	0.018	
4	Molding Compound (Plastic Package Only)	Epoxy material	51.00	Silica	14808-60-7	76.00	41.673	54.833
				Epoxy resin	25928-94-3	9.00	4.935	
				Phenolic resin-A,-B	9003-35-4	8.00	4.387	
				Hydroxide metal	21645-51-2	6.00	3.290	
				Carbon black	1333-86-4	1.00	0.548	
5	Plating	Matte-Tin	1.011	Tin	7440-31-5	100.00	1.087	1.087
		Total Weight	93.01					

(EU) RoHS Directive 2011/65/EU Application of lead which are exempted from the requirements:

7(a) Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

7(c)-I Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

CASRN: CAS Registry Number® is a Registered Trademark of the American Chemical Society