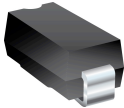


MATERIAL DECLARATION SHEET



Material Number	SMAJ400A~495A, SMAJ150CA~495CA			
Product Line	Semiconductors			
Compliance Date	2011/01/01			
RoHS Compliant	YES	MSL	1	

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	2.560	Silicon	7440-21-3	60.18	2.4168	4.016
				Phosphorous	7723-14-0	0.01	0.0004	
				Boron	7440-42-8	0.01	0.0004	
				Nickel	7440-02-0	14.80	0.5944	
				Lead-containing glass	7439-92-1	12.50	0.5020	
				Silicon dioxide	7631-86-9	10.00	0.4016	
				Aluminum oxide	1344-28-1	2.50	0.1004	
2	High-melting point Solder paste	Solder paste	2.777	Tin	7440-31-5	5.00	0.218	4.356
				Lead	7439-92-1	92.50	4.029	
				Silver	7440-22-4	2.50	0.109	
3	Lead frame	Copper	27.50	Copper	7440-50-8	99.80	43.051	43.137
				Iron	7439-89-6	0.15	0.065	
				Phosphorus	7723-14-0	0.05	0.021	
4	Molding compound	Epoxy material	30.25	Silica	14808-60-7	76.00	36.063	47.451
				Epoxy resin	25928-94-3	9.00	4.271	
				Phenolic resin-A,B	9003-35-4	8.00	3.796	
				Aluminum hydroxide	21645-51-2	6.00	2.847	
				Carbon black	1333-86-4	1.00	0.474	
5	Plating	Matte-100% tin	0.663	Tin	7440-31-5	100	1.04	1.04
		Total weight	63.75					

This Document was updated on: 2015/02/09

(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.