

# MATERIAL DECLARATION SHEET



Material Number	SM8S16A ~ 43A, SM8S16CA ~ 43CA		
Product Line	SD8S SERIES		
Compliance Date	2018/08/23		
RoHS Compliant	YES	MSL	1



No.	Construction Element(subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Dice	Silicon	0.0356	Silicon(Si)	7440-21-3	60.18	0.744142	1.236528
				Phosphorous(P)	7723-14-0	0.01	0.000124	
				Boron(B)	7440-42-8	0.01	0.000124	
				Nickel (Ni)	7440-02-0	14.8	0.183006	
				Lead Silicate glass (Note2)	65997-18-4	12.5	0.154566	
				SiO <sub>2</sub>	7631-86-9	10.0	0.123653	
				Al <sub>2</sub> O <sub>3</sub>	1344-28-1	2.5	0.030913	
2	High-melting point Solder paste	Solder paste	0.05365	Tin (Sn)	7440-31-5	5	0.09317	1.86347
				Lead (Pb)(Note3)	7439-92-1	92.5	1.72371	
				Ag	7440-22-4	2.5	0.04659	
3	Lead frame	Copper	2.25725	Copper (Cu)	7440-50-8	99.8	78.246255	78.403055
				Iron (Fe)	7439-89-6	0.15	0.11760	
				P (Note4)	7723-14-0	0.05	0.03920	
4	Molding compound	Epoxy material	0.50775	Silica (SiO <sub>2</sub> )	60676-86-0	76.0	13.403459	17.63613
				Epoxy resin	29690-82-2	12.0	2.116336	
				Phenolic resin	9003-35-4	11.0	1.939974	
				Carbon Black	1333-86-4	1.0	0.176361	
5	Plating	Matte-100% tin	0.024783	Tin (Sn)	7440-31-5	100.0	0.86081	0.86081
			Total weight	2.879033 g				

This Document was updated on: 2023/03/30

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.

## **MATERIAL DECLARATION**

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2. **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. (EU) RoHS Directive 2011/65/EU ANNEX.**
3. **7(a) Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead) . (EU) RoHS Directive 2011/65/EU ANNEX**
4. **Phosphorus which is included in copper and copper alloy products are state of metal and that are stable condition which is combined with other metal ,so there are no flow out, leak and segregation.**