

# MATERIAL DECLARATION SHEET



Material Number	SMF4L5.0A ~ 85A		
Product Line	SMF4L SERIES		
Compliance Date	2020/08/31		
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	0.0010897	Silicon	7440-21-3	59.42	4.08298	6.87139
				Phosphorous	7723-14-0	0.01	0.00069	
				Boron	7440-42-8	0.01	0.00069	
				Nickel	7440-02-0	14.8	1.01697	
				Gold	7440-57-5	0.76	0.05222	
				Lead-containing glass	7439-92-1	12.5	0.85892	
				Silicon dioxide	7631-86-9	10.0	0.68714	
				Aluminum oxide	1344-28-1	2.5	0.17178	
2	High-melting point Solder paste	Solder paste	0.0013109	Tin	7440-31-5	5	0.413311	8.26623
				Lead	7439-92-1	92.5	7.64626	
				Silver	7440-22-4	2.5	0.20666	
3	Lead frame	Copper	0.0068914	Copper	7440-50-8	99.8	43.36865	43.45556
				Iron	7439-89-6	0.15	0.065183	
				Phosphorus	7723-14-0	0.05	0.021728	
4	Molding compound	Epoxy material	0.0064607	Silica	14808-60-7	76.0	30.96215	40.73967
				Epoxy resin	25928-94-3	12.0	4.88876	
				Phenolic resin	9003-35-4	11.0	4.48136	
				Carbon black	1333-86-4	1.0	0.40740	
5	Plating	Matte-100% tin	0.0001058	Tin	7440-31-5	100.0	0.667150	0.667150
Total weight			0.0158585 g					

This Document was updated on: 2020/09/17

(EU) RoHS Directive 2011/65/EU ANNEX 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. piezoelectric devices, or in a glass or ceramic matrix compound.