

# Material Composition Specification

## SOT-323 Case



Device average mass . . . . . **5.47 mg**  
 Fluctuation margin . . . . . **+/-10%**

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	4.2%	0.23	Si	7440-21-3	4.2%	0.23	42,048
bond wire	gold	0.37%	0.02	Au	7440-57-5	0.37%	0.02	3,656
leadframe	alloy 42 w/ silver plating	23.77%	1.3	Fe	7439-89-6	13.71%	0.75	137,112
				Ni	7440-02-0	9.51%	0.52	95,064
				Ag	7440-22-4	0.55%	0.03	5,484
encapsulation*	EMC	67.46%	3.69	silica	7631-86-9	49.91%	2.73	499,086
				epoxy resin	Proprietary	15.72%	0.86	157,221
				Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	1.28%	0.07	12,797
				Br	7726-95-6	0.37%	0.02	3,656
				carbon	1333-86-4	0.18%	0.01	1,828
	EMC GREEN	67.46%	3.69	silica (fused)	60676-86-0	51.94%	2.841	519,442
				epoxy resin	29690-82-2	6.75%	0.369	67,456
				phenol resin	9003-35-4	6.54%	0.358	65,433
				carbon black	1333-86-4	0.2%	0.011	2,023
				metal hydroxide	1309-42-8	2.02%	0.111	20,235
plating**	tin/lead process	4.2%	0.23	Sn	7440-31-5	3.29%	0.18	32,907
				Pb	7439-92-1	0.91%	0.05	9,141
	matte tin	4.2%	0.23	Sn	7440-31-5	4.2%	0.23	42,048

\*EMC GREEN molding compound is Halogen-Free.

\*\*For Lead Free plating, add suffix "LEAD FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

### Disclaimer

The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

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