

Material Composition Specification

DO-15 Case



Device average mass 401 mg
 Fluctuation margin +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.42%	1.68	Si	7440-21-3	0.42%	1.68	4,190
die attach	high temperature solder	0.7%	2.81	Pb	7439-92-1	0.65%	2.6	6,484
				Sn	7440-31-5	0.03%	0.14	349
				Ag	7440-22-4	0.02%	0.07	175
leadframe	Cu alloy	73.57%	295	Cu	7440-50-8	73.49%	294.7	734,931
				Fe	7439-89-6	0.07%	0.3	748
encapsulation*	EMC	21.2%	85	silica	7631-86-9	16.31%	65.4	163,096
				epoxy resin	29690-82-2	2.12%	8.5	21,198
				phenol resin	9003-35-4	2.05%	8.24	20,549
				Sb ₂ O ₃	1309-64-4	0.36%	1.43	3,566
				Br	7726-95-6	0.36%	1.43	3,566
	EMC GREEN	21.2%	85	silica	7631-86-9	16.31%	65.4	163,096
				epoxy resin	29690-82-2	2.12%	8.5	21,198
				phenol resin	9003-35-4	2.05%	8.24	20,549
				carbon black	1333-86-4	0.06%	0.26	648
				metal hydroxide	1309-42-8	0.65%	2.6	6,484
plating**	tin/lead process	4.1%	16.46	Sn	7440-31-5	3.28%	13.17	32,844
				Pb	7439-92-1	0.82%	3.29	8,205
	100% tin process	4.1%	16.46	Sn	7440-31-5	4.1%	16.46	41,048
ink	N/A	0.01%	0.04	2-propenic acid	53192-18-0	0.01%	0.022	55
				Al	7429-90-5	0.001%	0.006	15
				silica	112945-52-5	0.0002%	0.001	2
				methanone	947-19-3	0.0002%	0.001	2
				isoamyl 4-benzoate	21245-01-2	0.002%	0.01	25

*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.

R2 (3-June 2011)