Material Composition Specification

DO-201 Epoxy Case

Device average mass . . . . . 881 mg
Fluctuation margin . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.43%	3.78	Si	7440-21-3	0.43%	3.78	4,291
die attach	high temperature solder	0.47%	4.12	Pb	7439-92-1	0.43%	3.81	4,325
				Sn	7440-31-5	0.02%	0.206	234
				Ag	7440-22-4	0.01%	0.103	117
leadframe	metal alloy	60.16%	530	Fe	7439-89-6	0.06%	0.53	602
				Cu	7440-50-8	60.1%	529.47	600,987
encapsulation*	EMC	33.26%	293.057	SiO_2	14808-60-7	25.91%	228.25	259,080
				epoxy resin	29690-82-2	3.35%	29.55	33,541
				phenol resin	9003-35-4	3.35%	29.55	33,541
				Sb_2O_3	1309-64-4	0.32%	2.854	3,239
				Br	7726-95-6	0.32%	2.854	3,239
	EMC GREEN	33.26%	293.057	silica (fused)	60676-86-0	25.62%	225.71	256,197
				epoxy resin	29690-82-2	3.27%	28.777	32,664
				phenol resin	9003-35-4	3.27%	28.777	32,664
				carbon black	1333-86-4	0.1%	0.887	1,007
				aluminum hydroxide	1309-42-8	1.01%	8.905	10,108
plating**	tin/lead process	5.68%	50	Sn	7440-31-5	4.54%	40	45,403
				Pb	7439-92-1	1.14%	10	11,351
	matte tin	5.68%	50	Sn	7440-31-5	5.68%	50	56,754
ink	N/A	0.005%	0.045	2-propenic acid	53192-18-0	0.0023%	0.02	23
				Al	7429-90-5	0.0007%	0.006	7
				silica	112945-52-5	0.0001%	0.001	1
				methanone	947-19-3	0.0001%	0.001	1
				isoamyl 4-benzoate	21245-01-2	0.0019%	0.017	19

*EMC GREEN molding compound is Halogen-Free.
**For Lead Free plating, add suffix "PB 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.

R3 (16-July 2018)