Material Composition Specification
CASE 106

Device average mass . . . . . . 1.95 g
Fluctuation margin . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.29%	5.71	Si	7440-21-3	0.28%	5.43	2,785
				Pb	7439-92-1	0.01%	0.28	144
die attach	high temperature solder	0.57%	11.11	Pb	7439-92-1	0.53%	10.275	5,269
				Sn	7440-31-5	0.03%	0.556	285
				Ag	7440-22-4	0.01%	0.279	143
leadframe	Cu alloy	54.1%	1055	Cu	7440-50-8	54.05%	1054	540,513
				Fe	7439-89-6	0.05%	1.0	513
encapsulation*	EMC	41.4%	807.6	silica	7631-86-9	31.87%	621.37	318,651
				epoxy resin	29690-82-2	4.14%	80.76	41,415
				phenol resin	9003-35-4	4.01%	78.29	40,149
				Sb2O3	1309-64-4	0.70%	13.59	6,969
				Br	7726-95-6	0.70%	13.59	6,969
	EMC GREEN	41.4%	807.6	silica	7631-86-9	31.89%	621.85	318,897
				epoxy resin	29690-82-2	4.14%	80.76	41,415
				phenol resin	9003-35-4	4.02%	78.337	40,173
				carbon black	1333-86-4	0.12%	2.423	1,243
				metal hydroxide	1309-42-8	1.24%	24.23	12,426
plating**	tin/lead process	3.62%	70.55	Sn	7440-31-5	2.89%	56.44	28,944
				Pb	7439-92-1	0.72%	14.11	7,236
	matte tin	3.62%	70.55	Sn	7440-31-5	3.62%	70.55	36,179
ink	N/A	0.0015%	0.03	2-propenic acid	53192-18-0	0.001%	0.0204	10
				Al	7429-90-5	0.0003%	0.0054	3
				silica	112945-52-5	0.00005%	0.0009	0.5
				methanone	947-19-3	0.00005%	0.0009	0.5
				isoamyl 4-benzoate	21245-01-2	0.0001%	0.0024	1

*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.

R1 (16-July 2018)