Material Composition Specification

DO-41SP Epoxy Case

Device average mass . . . . . 210 mg

Fluctuation margin . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.22%	0.47	Si	7440-21-3	0.22%	0.47	2,238
				Au	7440-57-5	0.001%	0.002	10
die attach	high temperature solder	0.39%	0.82	Pb	7439-92-1	0.36%	0.75	3,571
				Sn	7440-31-5	0.02%	0.042	200
				Ag	7440-22-4	0.01%	0.025	119
leadframe	metal alloy	83.02%	174.4	Fe	7439-89-6	0.07%	0.157	748
				Cu	7440-50-8	82.94%	174.2	829,421
encapsulation*	EMC	13.85%	29.1	SiO_2	14808-60-7	9.43%	19.8	94,274
				epoxy resin	29690-82-2	2.63%	5.52	26,282
				phenol resin	9003-35-4	1.38%	2.9	13,808
				Sb_2O_3	1309-64-4	0.14%	0.293	1,395
				Br	7726-95-6	0.28%	0.584	2,781
	EMC GREEN	13.85%	29.1	silica (fused)	60676-86-0	10.67%	22.4	106,653
				epoxy resin	29690-82-2	1.39%	2.92	13,903
				phenol resin	9003-35-4	1.34%	2.82	13,427
				carbon black	1333-86-4	0.04%	0.085	405
				aluminum hydroxide	1309-42-8	0.42%	0.872	4,152
plating**	tin/lead process	2.5%	5.25	Sn	7440-31-5	2%	4.2	19,998
				Pb	7439-92-1	0.5%	1.05	4,999
	matte tin	2.5%	5.25	Sn	7440-31-5	2.5%	5.25	24,997
ink	N/A	0.02%	0.03	2-propenic acid	53192-18-0	0.01%	0.022	105
				Al	7429-90-5	0.003%	0.006	29
				silica	112945-52-5	0.0005%	0.001	5
				methanone	947-19-3	0.0005%	0.001	5
				isoamyl 4-benzoate	21245-01-2	0.001%	0.003	14

*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.

R2 (16-July 2018)