

# Material Composition Specification

## DO-201AD Epoxy Case



Device average mass . . . . 1100 mg  
Fluctuation margin . . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.34%	3.78	Si	7440-21-3	0.34%	3.78	3,436
die attach	high temperature solder	0.37%	4.12	Pb	7439-92-1	0.35%	3.81	3,464
				Sn	7440-31-5	0.02%	0.206	187
				Ag	7440-22-4	0.01%	0.103	94
leadframe	metal alloy	67.55%	743	Fe	7439-89-6	0.07%	0.74	673
				Cu	7440-50-8	67.48%	742.26	674,781
encapsulation*	EMC	26.64%	293.057	SiO <sub>2</sub>	14808-60-7	20.75%	228.25	207,500
				epoxy resin	29690-82-2	2.69%	29.55	26,864
				phenol resin	9003-35-4	2.69%	29.55	26,864
				Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	0.26%	2.854	2,594
				Br	7726-95-6	0.26%	2.854	2,594
	EMC GREEN	26.64%	293.057	silica (fused)	60676-86-0	20.52%	225.71	205,191
				epoxy resin	29690-82-2	2.62%	28.777	26,161
				phenol resin	9003-35-4	2.62%	28.777	26,161
				carbon black	1333-86-4	0.08%	0.887	806
				aluminum hydroxide	1309-42-8	0.81%	8.905	8,095
plating**	tin/lead process	5.09%	56	Sn	7440-31-5	4.62%	50.8	46,182
				Pb	7439-92-1	0.47%	5.2	4,727
	matte tin	5.09%	56	Sn	7440-31-5	5.09%	56	50,909
ink	N/A	0.004%	0.045	2-propenic acid	53192-18-0	0.0018%	0.02	18
				Al	7429-90-5	0.0005%	0.006	5
				silica	112945-52-5	0.0001%	0.001	1
				methanone	947-19-3	0.0001%	0.001	1
				isoamyl 4-benzoate	21245-01-2	0.0015%	0.017	15

\*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)