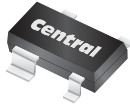
Material Composition Specification

SOT-143 Case



Device average mass . . . . 9.5 mg
Fluctuation margin . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	3.47%	0.33	Si	7440-21-3	3.47%	0.33	34,737
bond wire	gold	0.14%	0.013	Au	7440-57-5	0.14%	0.013	1,368
leadframe	Cu alloy w/ silver plating	27.06%	2.57	Cu	7440-50-8	26.32%	2.5	263,158
				Fe	7439-89-6	0.63%	0.06	6,316
				Zn	7440-66-6	0.09%	0.009	947
				Ag	7440-22-4	0.02%	0.002	211
die attach	silver epoxy	0.06%	0.006	epoxy resin	Proprietary	0.01%	0.001	105
				Ag	7440-22-4	0.05%	0.005	526
encapsulation*	EMC	68.63%	6.52	silica	7631-86-9	55.16%	5.24	551,579
				epoxy resin	29690-82-2	8.21%	0.78	82,105
				phenol resin	9003-35-4	4.11%	0.39	41,053
				Sb_2O_3	1309-64-4	0.58%	0.055	5,789
				Br	7726-95-6	0.58%	0.055	5,789
	EMC GREEN	68.63%	6.52	silica	7631-86-9	52.84%	5.02	528,421
				epoxy resin	29690-82-2	6.74%	0.64	67,368
				phenol resin	9003-35-4	6.74%	0.64	67,368
				carbon black	1333-86-4	0.21%	0.02	2,105
				metal hydroxide	1309-42-8	2.11%	0.2	21,053
plating**	tin/lead process	0.63%	0.06	Sn	7440-31-5	0.51%	0.048	5,053
				Pb	7439-92-1	0.13%	0.012	1,263
	matte tin	0.63%	0.06	Sn	7440-31-5	0.63%	0.06	6,316

*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.

R5 (16-July 2018)