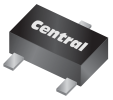
Material Composition Specification

SOT-523 Case



Device average mass . . . . **2.6 mg**
Fluctuation margin . . . . **+/-10%**

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	2.73%	0.07	Si	7440-21-3	2.73%	0.071	27,250
bond wire	gold or copper	0.35%	0.01	Au	7440-57-5	0.35%	0.009	3,540
				Cu	7440-50-8			
leadframe	Cu alloy w/ Ni + Ag plating	35.29%	0.92	Cu	7440-50-8	30.75%	0.8	307,540
				Ni	7440-02-0	3.12%	0.081	31,240
				Sn	7440-31-5	0.82%	0.021	8,240
				Ag	7440-22-4	0.58%	0.015	5,840
encapsulation*	EMC	59.03%	1.54	silica	7631-86-9	42.56%	1.107	425,640
				epoxy resin	Proprietary	14.83%	0.386	148,310
				Sb_2O_3	1309-64-4	1.18%	0.031	11,800
				TBBA	79-94-7	0.3%	0.008	3,000
				carbon	1333-86-4	0.15%	0.004	1,500
	EMC GREEN	59.03%	1.54	silica	7631-86-9	43.65%	1.136	436,587
				epoxy resin	Proprietary	15.21%	0.396	152,124
				carbon	1333-86-4	0.15%	0.004	1,539
plating**	tin/lead process	2.61%	0.07	Sn	7440-31-5	2.22%	0.058	22,185
				Pb	7439-92-1	0.39%	0.01	3,915
	matte tin	2.61%	0.07	Sn	7440-31-5	2.61%	0.068	26,100

*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.

R8 (16-July 2018)