

Material Composition Specification

SOT-89 Case

Pb (lead)-free plating**



Device average mass 51.4 mg

Fluctuation margin +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.43%	0.222	Si	7440-21-3	0.43%	0.222	4,319
bond wire	gold	0.06%	0.032	Au	7440-57-5	0.06%	0.032	623
leadframe	Cu alloy w/ silver and nickel plating	49.47%	25.43	Cu	7440-50-8	49.26%	25.319	492,588
				Ag	7440-22-4	0.14%	0.071	1,381
				Ni	7440-02-0	0.08%	0.04	778
encapsulation*	EMC	48.68%	25.02	silica	7631-86-9	36.01%	18.51	360,117
				epoxy resin	Proprietary	11.32%	5.82	113,230
				Sb ₂ O ₃	1309-64-4	0.98%	0.502	9,767
				TBBA	79-94-7	0.24%	0.125	2,432
				carbon black	1333-86-4	0.12%	0.062	1,206
	EMC GREEN	48.68%	25.02	silica	60676-86-0	32.43%	16.67	324,319
				epoxy resin	37382079-9	5.62%	2.89	56,226
				phenol resin	9003-35-4	5.62%	2.89	56,226
				carbon black	1333-86-4	0.13%	0.069	1,342
				metal hydroxide	1309-42-8	4.86%	2.5	48,638
plating**	tin lead process	1.36%	0.697	Sn	7440-31-5	1.15%	0.592	11,518
				Pb	7439-92-1	0.2%	0.105	2,043
	100% tin process	1.36%	0.697	Sn	7440-31-5	1.36%	0.697	13,560

*EMC GREEN molding compound is Halogen-Free.

**Specify Lead-Free when ordering 100% tin (Pb-free) plating.

Disclaimer

The information provided in this Material Composition data sheet is, to our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.