

**5 Leads - TSOT
Package Material Declaration**



Date	12-Feb-18	Product name	Integrated Circuit
Package Code	SE	RoHS Compliant	Y
Package Name	Thin Small Outline Transistor	Halogen Free	Y
Product Total Mass (g)	0.01225	Plating	Pure Matte Sn

Product Number	US168
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Material Declaration

Part Name	Material Name	Component Weight (g)	Material Component (Element)	CAS #	Element ratio (%)	Material Weight (g)	Ratio total Wt (ppm)
Leadframe	High Copper Alloy C194	0.00534	Copper (Cu)	7440-50-8	97.45	0.00520	424346
			Iron (Fe)	7439-89-6	2.4	0.00013	10451
			Zinc (Zn)	7440-66-6	0.12	0.00001	523
			Phosphorus (P)	7723-14-0	0.03	0.000002	131
Frame Plating	Silver	0.00025	Silver (Ag)	7440-22-4	100	0.00025	20402
Die	Silicon IC	0.00076	Silicon (Si)	7440-21-3	99.99	0.00076	62014
			others	-	0.01	0.0000001	6
Die attach material	Epoxy 84-1 LMISR4	0.00034	Epoxy resin	Proprietary	20	0.00007	5549
			Silver (Ag)	7440-22-4	75	0.00026	20810
			Aromatic amine	Proprietary	5	0.00002	1387
Wire	Gold	0.00002	Gold (Au)	7440-57-5	99.99	0.00002	1632
			others	-	0.01	0.000000002	0.2
Lead Finish	Matte tin	0.00040	Tin (Sn)	7440-31-5	99.99	0.00040	32639
			others	-	0.01	0.00000004	3
Encapsulation	Epoxy Resin G600	0.00515	Multi aromatic resin	Proprietary	7.5	0.00039	31508
			Silica fused	60676-86-0	86	0.00443	361293
			Carbon Black	1333-86-4	0.5	0.00003	2101
			Epoxy Cresol Novolac	29690-82-2	2	0.00010	8402
			Phenol resin	Proprietary	4	0.00021	16804

Total package weight (g) 0.01225

Comments

- Composition derived from MSDS and material CoC from vendors
- Component weight based on assembly of generic parts
- Reliability qualification reports are available upon request through the appropriate sales or marketing contact
- Third party testing for RoHS substances are available upon request to environment@melexis.com

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