

**3 Leads - TSOT
Package Material Declaration**

Date	24-Feb-20	Product name	Integrated Circuit
Package Code	SE	RoHS Compliant	Y
Package Name	Thin Small Outline Transistor	Halogen Free	Y
Product Total Mass (g)	0.01118	Plating	Pure Matte Sn
Product Number	MLX92291		

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	0.00453	Copper (Cu)	7440-50-8	97.45	0.00441	395032
			Iron (Fe)	7439-89-6	2.4	0.00011	9729
			Zinc (Zn)	7440-66-6	0.12	0.00001	486
			Phosphorus (P)	7723-14-0	0.03	0.000001	122
Frame plating	Silver	0.00015	Silver (Ag)	7440-22-4	100	0.00015	13423
Die	Silicon	0.00076	Silicon (Si)	7440-21-3	99.99	0.00076	67913
			others	-	0.01	0.0000001	7
IMC	S-FeNi-8	0.000006	Iron (Fe)	7439-89-6	19.75	0.0000012	106
			Nickel (Ni) (0.0 ~ 80%)	7440-02-0	40	0.0000024	215
			Molybdenum (Mo) (0.0 ~ 80%)	7439-98-7	40	0.0000024	215
			others (max. 0.5%)	-	0.25	0.00000002	1
Die attach material	Epoxy 84-1 LMISR4	0.00034	Epoxy resin	Proprietary	20	0.00007	6085
			Silver (Ag)	7440-22-4	75	0.00026	22819
			Aromatic amine	Proprietary	5	0.00002	1521
Wire	Gold with Palladium	0.00002	Gold (Au)	7440-57-5	99	0.00002	1772
			Palladium (Pd)	7440-05-3	1	0.0000002	18
Lead Finish	Tin	0.00026	Tin (Sn)	7440-31-5	99.99	0.00026	23264
			others	-	0.01	0.00000003	2
Encapsulation	Epoxy resin G600	0.00511	Multi aromatic resin	Proprietary	7.5	0.00038	34295
			Silica fused	60676-86-0	86	0.00439	393253
			Carbon Black	1333-86-4	0.5	0.00003	2286
			Epoxy Cresol Novolac	29690-82-2	2	0.00010	9145
			Phenol resin	Proprietary	4	0.00020	18291

Total package weight (g) 0.01118

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

Disclaimer

"MELEXIS has taken every effort to ensure that the information provided in this document is correct, accurate and up-to-date.

MELEXIS, however, shall not be held liable for any improper or incorrect use of the information described and/or contained herein and assumes no responsibility whatsoever for recipient's or a third party's use of this information. In no event MELEXIS shall be held liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to: procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, tort (including negligence or otherwise), or any other theory arising in any way out of the use of this system, even if advised of the possibility of such damage.

This disclaimer of liability applies to any damages or injury, whether based on alleged breach of contract, tortious behavior, negligence or any other cause of action".