



## **Super 247**

### **RoHS Compliance Document**

Contents:

1. Composition
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**SUPER-247**

Component	Material Name	Material Mass (g)	Element Name Composition	CAS Number	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.05530	Si	7440-21-3	0.05530	100%	0.9%
Encapsulant	Epoxy Resin	0.81510	SiO2	7631-86-9	0.66267	81%	10.4%
			Epoxy	90598-46-2	0.06521	8%	1.0%
			Other	-	0.08722	11%	1.4%
Lead Frame	Copper	5.35810	Cu	7440-50-8	5.33131	100%	83.6%
			Fe	7439-89-6	0.02679	0%	0.4%
Die Attach	J-alloy	0.02730	Sn	7440-31-5	0.01774	65%	0.3%
			Ag	7440-22-4	0.00683	25%	0.1%
			Sb	7440-36-0	0.00273	10%	0.0%
Wire bond	Aluminum	0.04780	Al	7429-90-5	0.04780	100%	0.7%
Lead Finish	Matte Tin over Nickel*	0.07060	Ni	7440-02-0	0.00988	14%	0.2%
			Sn	7440-31-5	0.06072	86%	1.0%

Total Weight  
(g) **6.37420**

\* Tin whisker mitigation strategy is nickel under-plate.

This part is compliant with EU Directive 2002/95/EC (RoHS) and does not contain lead, mercury, cadmium (0.01%), hexavalent chromium, PBB or PBDE in concentrations greater than 0.1%, except as permitted by Annex (7).



**SUPER-247**

Test Definition	Test Conditions	Inspection Interval Class 1 and 2 Products	Total Duration Class 1 and 2 Products	Maximum Whisker Length (um)
<b>Room Temperature Humidity Storage</b>	30± 2°C/60± 3%RH	1000 hours	4000 hours	20
<b>Temperature Humidity Unbiased</b>	55± 3°C/85±3% RH	1000 hours	4000 hours	20
<b>Temperature Cycling</b>	-40 to 55°C to 80 to 95°C, air to air, 10 min soak, approx 3 cycles /hours	500 cycles	1500 cycles	45

Tin Whisker testing per JESD201, Environmental Acceptance Requirements for Tin Whisker Susceptibility of Tin and Tin Alloy Surface Finish

Tin Whisker Results (number of failing whiskers)

Test	1000 Hours	2000 Hours	3000 Hours	4000 Hours
<b>Room Temperature Humidity Storage</b>	0/24	0/24	0/24	0/24
<b>Temperature Humidity Unbiased</b>	0/24	0/24	0/24	0/24
<b>Test</b>	<b>500 Cycles</b>	<b>1000 Cycles</b>	<b>1500 Cycles</b>	
<b>Temperature Cycling</b>	0/24	0/24	0/24	