



## **SOIC-28**

# **RoHS Compliance Document**

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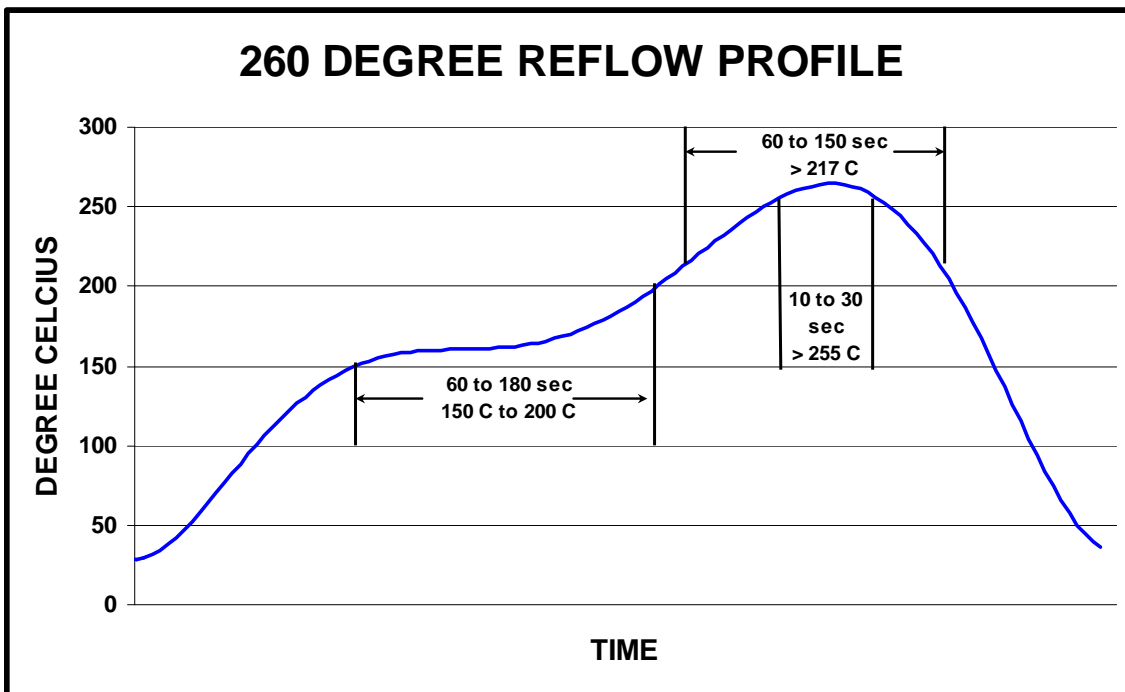
1. Composition
2. Solder Reflow
3. Tin Whisker Report



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Component	Material Name	Material Mass (g)	Element Name Composition	CAS #	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00884	Si	7440-21-3	0.00884	100%	1.2%
Encapsulant	Epoxy Resin	0.53705	SiO2	7631-86-9	0.46160	86%	61.9%
			Epoxy	90598-46-2	0.06572	12%	8.8%
			Other	-	0.00973	2%	1.3%
Lead Frame	Copper	0.18905	Cu	7440-50-8	0.18419	97%	24.7%
			Fe	7439-89-6	0.00486	3%	0.7%
Die Attach	Silver Epoxy	0.00110	Ag	7440-22-4	0.00087	79%	0.1%
			Epoxy	90598-46-2	0.00017	16%	0.0%
			Other	-	0.00006	5%	0.0%
Wire bond	Gold	0.00112	Au	7440-57-5	0.00112	100%	0.2%
Lead Finish	Matte Tin*	0.00826	Sn	7440-31-5	0.00826	100%	1.1%
			Total Weight (g)		<b>0.74542</b>		

\* Tin whisker mitigation strategy is 150 C, 1 hour anneal within 24 hours of tin plating.



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).



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<b>Test Definition</b>	<b>Test Conditions</b>	<b>Inspection Interval Class 1 and 2 Products</b>	<b>Total Duration Class 1 and 2 Products</b>	<b>Maximum Whisker Length (um)</b>
<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)

<b>Test</b>	<b>1000 Hours</b>	<b>2000 Hours</b>	<b>3000 Hours</b>	<b>4000 Hours</b>
<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	