



## **SOIC-16N**

### **RoHS Compliance Document**

Contents:

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



# International Rectifier

41915 Business Park Drive, Temecula, California 92590 \* Telephone (951) 676-7500

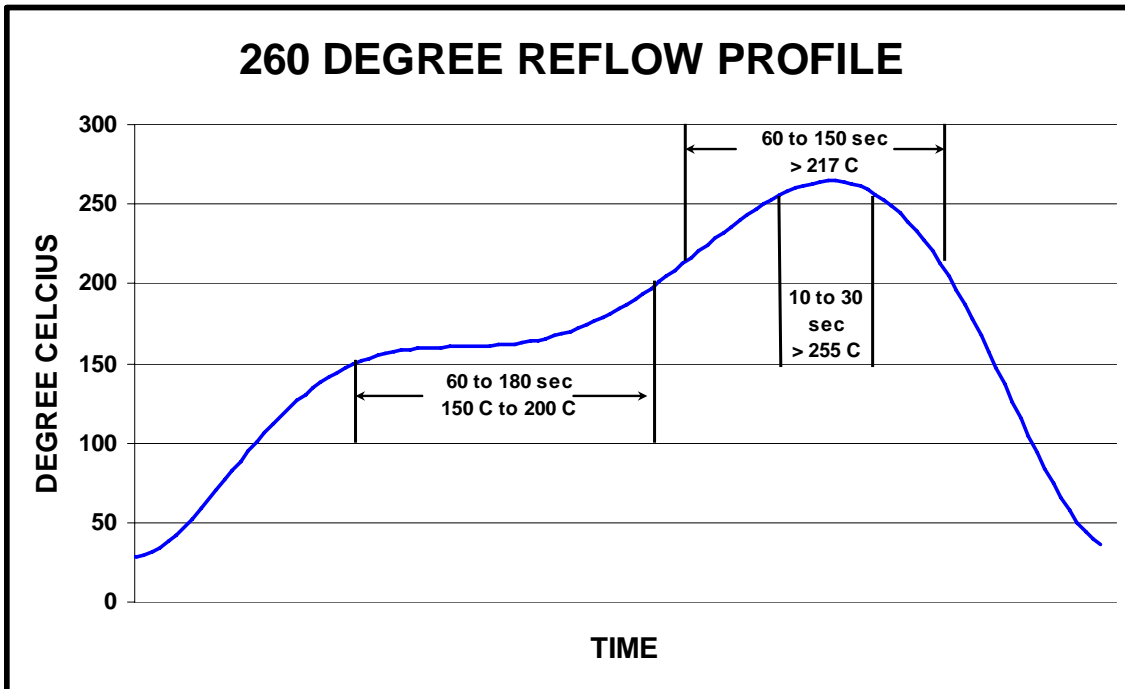


## SOIC-16 Narrow BOM 1

Component	Material Name	Material Mass (g)	Element Name Composition	CAS Number	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00355	Si	7440-21-3	0.00355	100%	4.1%
Encapsulant	Epoxy Resin	0.04789	SiO2	7631-86-9	0.04119	86%	47.9%
			Epoxy	90598-46-2	0.00575	12%	6.7%
			Other	-	0.00095	2%	1.1%
Lead Frame	Copper	0.03156	Cu	7440-50-8	0.03061	97%	35.5%
			Fe	7439-89-6	0.00095	3%	1.1%
Die Attach	Silver Epoxy	0.00081	Ag	7440-22-4	0.00064	79%	0.7%
			Epoxy	90598-46-2	0.00012	15%	0.1%
			Other	-	0.00005	6%	0.1%
Wire bond	Gold	0.00051	Au	7440-57-5	0.00051	100%	0.6%
Lead Finish	Tin	0.00292	Sn	7440-31-5	0.00292	100%	2.1%

	Total Weight (g)	<b>0.08724</b>
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\* 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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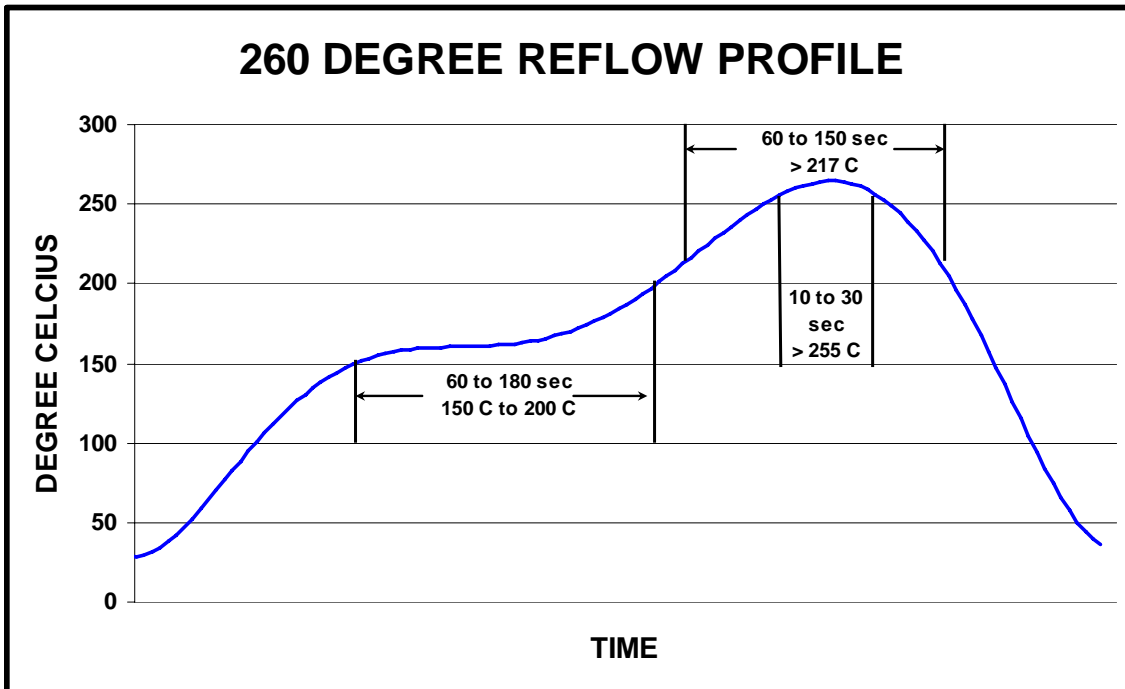


## SOIC-16 Narrow BOM 2

Component	Material Name	Material Mass (g)	Element Name Composition	CAS Number	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00355	Si	7440-21-3	0.00355	100%	4.1%
Encapsulant	Epoxy Resin	0.04789	SiO2	7631-86-9	0.04119	86%	47.9%
			Epoxy	90598-46-2	0.00575	12%	6.7%
			Other	-	0.00095	2%	1.1%
Lead Frame	Copper	0.03156	Cu	7440-50-8	0.03061	97%	35.5%
			Fe	7439-89-6	0.00095	3%	1.1%
Die Attach	Silver Epoxy	0.00081	Ag	7440-22-4	0.00064	79%	0.7%
			Epoxy	90598-46-2	0.00012	15%	0.1%
			Other	-	0.00005	6%	0.1%
Wire bond	Copper	0.00051	Cu	7440-50-8	0.00051	100%	0.6%
Lead Finish	Tin	0.00292	Sn	7440-31-5	0.00292	100%	2.1%

	Total Weight (g)	<b>0.08724</b>
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## SOIC-16 Narrow

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
Test	500 Cycles	1000 Cycles	1500 Cycles	
<b>Temperature Cycling</b>	0/24	0/24	0/24	