



SOIC-28

RoHS Compliance Document

Contents:

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



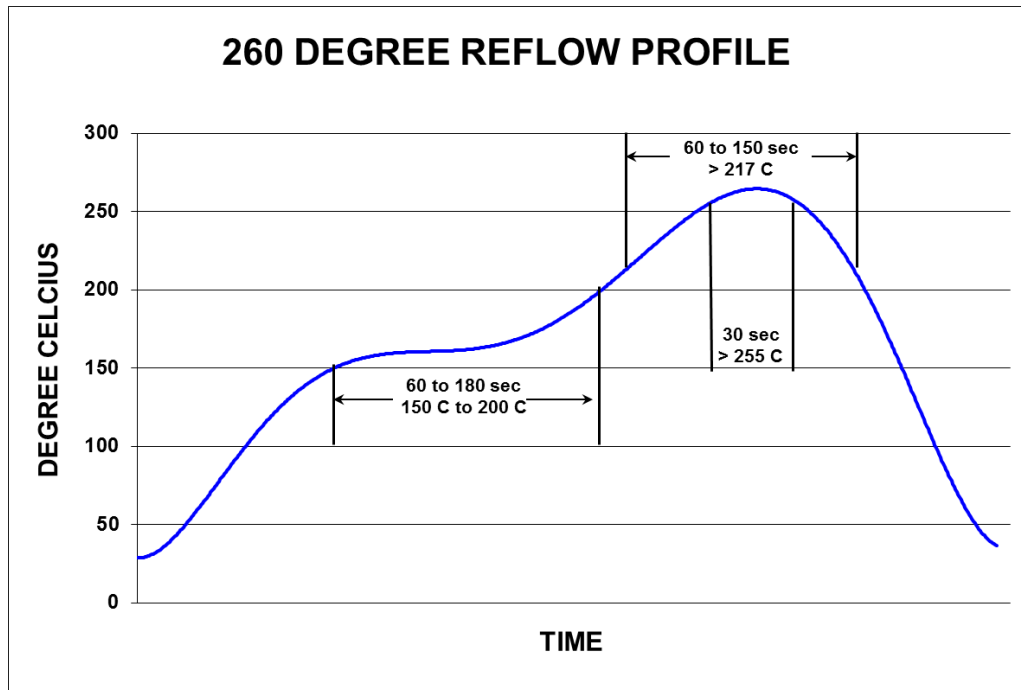
SOIC-28 BOM 1

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	SiO ₂	7631-86-9	0.46160	86%	61.9%
			Epoxy	90598-46-2	0.06572	12%	8.8%
			Other	-	0.00973	2%	1.3%
			Cu	7440-50-8	0.18419	97%	24.7%
Lead Frame	Copper	0.18905	Fe	7439-89-6	0.00486	3%	0.7%
			Ag	7440-22-4	0.00087	79%	0.1%
Die Attach	Silver Epoxy	0.00110	Epoxy	90598-46-2	0.00017	16%	0.0%
			Other	-	0.00006	5%	0.0%
			Wire Bond	Gold	0.00112	Au	7440-57-5
Lead Finish	Matte Tin*	0.00826	Sn	7440-31-5	0.00826	100%	2.1%

Total Weight
(g)

0.74542

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



This part is compliant with EU Directive 2011/65/EU (RoHS Directive) 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 III. Further part complies with 3 reflow cycles per JEDEC J-STD-020



SOIC-28 BOM 2

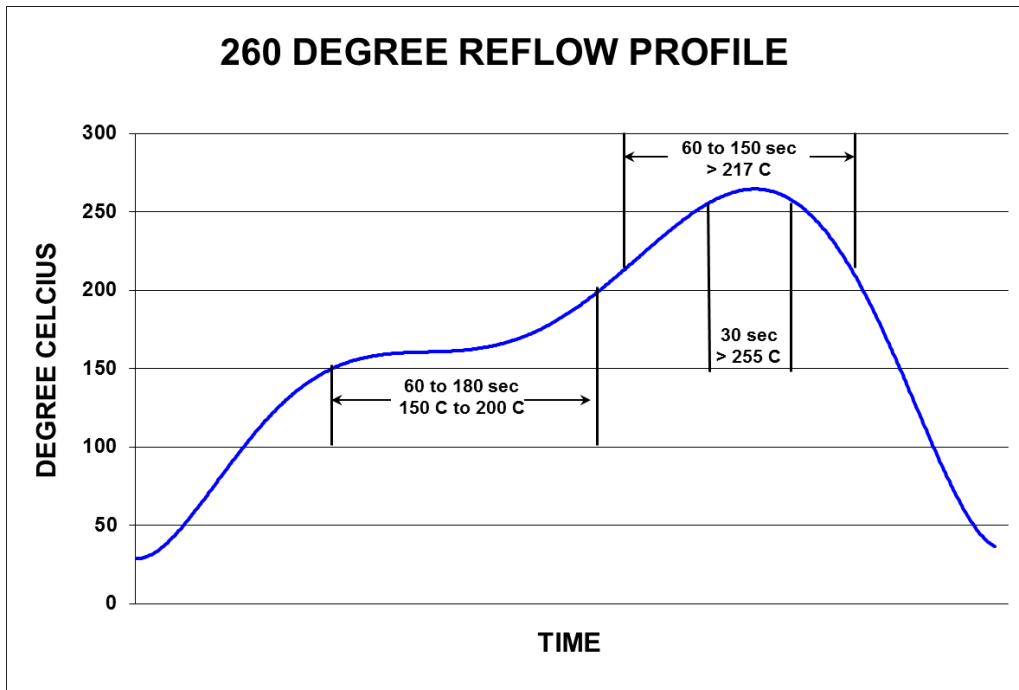
Component	Material Name	Material Mass (g)	Element Name Composition	CAS #	Substance Mass (g)	Material Analysis Weight (%)	% of Total Weight
Chip	Silicon	0.00884	Si	7440-21-3	0.00884	100%	1.2%
Encapsulant	Epoxy Resin	0.53705	SiO ₂	7631-86-9	0.46160	86%	61.9%
			Epoxy	90598-46-2	0.06572	12%	8.8%
			Other	-	0.00973	2%	1.3%
			Cu	7440-50-8	0.18419	97%	24.7%
Lead Frame	Copper	0.18905	Fe	7439-89-6	0.00486	3%	0.7%
			Ag	7440-22-4	0.00087	79%	0.1%
Die Attach	Silver Epoxy	0.00110	Epoxy	90598-46-2	0.00017	16%	0.0%
			Other	-	0.00006	5%	0.0%
			Wire Bond	Copper	0.00112	Cu	7440-50-8
Lead Finish	Matte Tin*	0.00826	Sn	7440-31-5	0.00826	100%	2.1%

Total Weight

(g)

0.74542

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



This part is compliant with EU Directive 2011/65/EU (RoHS Directive) 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 III. Further part complies with 3 reflow cycles per JEDEC J-STD-020



SOIC-28

Test Definition	Test Conditions	Inspection Interval Class 1 and 2 Products	Total Duration Class 1 and 2 Products	Maximum Whisker Length (µm)
Room Temperature Humidity	30± 2°C/60± 3% RH	1000 hours	4000 hours	20
Temperature Humidity Unbiase	55± 3°C/85± 3% RH	1000 hours	4000 hours	20
Temperature Cycling	-40 to 55°C to 80 to 95°C, air to air, 10 min soak, approx 3	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
Room Temperature Humidity Storage	0/24	0/24	0/24	0/24
Temperature Humidity	0/24	0/24	0/24	0/24
Test	500 Cycles	1000 Cycles	1500 Cycles	
Temperature Cycling	0/24	0/24	0/24	