


MATERIAL DECLARATION SHEET



Material Number	BIDW20N60T TO-247			
Product Line	Semiconductor			
Compliance Date	2022-07-07			
RoHS Compliant	YES, 7(a)	MSL	N.A.	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Chip1	Silicon	0.0169	Silicon dioxide	14808-60-7	0.91%	0.00126%	0.278%
				Silicon nitride	12033-89-5	0.01%	0.00001%	
				Titanium nitride	25583-20-4	0.02%	0.00003%	
				Silicon	7440-21-3	79.02%	0.10964%	
				Aluminum	7429-90-5	6.76%	0.00938%	
				Silver	7440-22-4	5.61%	0.00778%	
				Titanium	7440-32-6	0.22%	0.00031%	
				Copper	7440-50-8	5.84%	0.00810%	
	Chip2	Silicon	0.0169	Vanadium	7440-62-2	1.18%	0.00164%	
				Nickel	7440-02-0	0.43%	0.00060%	
				Silicon dioxide	14808-60-7	0.28%	0.00039%	
				Platinum	7440-06-4	0.03%	0.00004%	
				Silicon	7440-21-3	98.88%	0.13720%	
				Aluminum	7429-90-5	0.36%	0.00050%	
				Silver	7440-22-4	0.02%	0.00003%	
				Titanium	7440-32-6	0.24%	0.00033%	
2	Al wire	Aluminum	0.00616	Aluminum	7429-90-5	100.00%	0.10115%	0.101%
				Nickel	7440-02-0	0.19%	0.00026%	
3	Soft Solder	PbSn	0.0075	Lead	7439-92-1	90.00%	0.11084%	0.123%
				Tin	7440-31-5	10.00%	0.01232%	

MATERIAL DECLARATION SHEET



4	Lead frame	Copper	4.0642	Copper	7440-50-8	99.87%	66.64888%	66.736%
				Iron	7439-89-6	0.10%	0.06674%	
				Phosphorus	7723-14-0	0.03%	0.02002%	
5	Mold Compound	Resin	1.96399	Silica, vitreous	60676-86-0	80.00%	25.79954%	32.249%
				Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2	10.00%	3.22494%	
				Phenol-formaldehyde polymer	9003-35-4	7.00%	2.25746%	
				Zinc borate hydrate	138265-88-0	1.00%	0.32249%	
				Carbon black	1333-86-4	1.00%	0.32249%	
				3-Mercaptopropyl trimethoxysilane 3-	4420-74-0	1.00%	0.32249%	
6	Plating	Matte-100% tin	0.03125	Tin	7440-31-5	100.00%	0.51314%	0.513%
		Total weight	6.090 g					

This Document was updated on: 2022/07/07

(EU) RoHS Directive 2011/65/EU ANNEX Application of lead which are exempted from the requirements

7(a) Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)