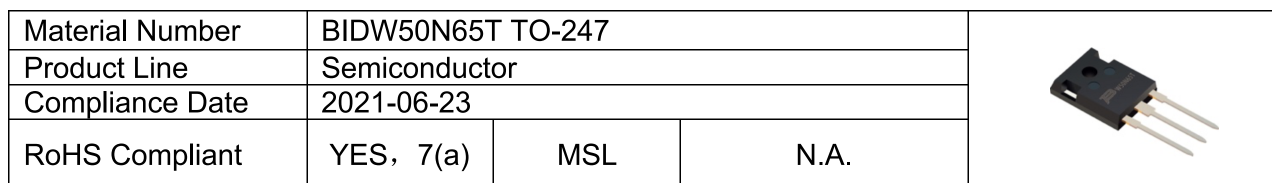
MATERIAL DECLARATION SHEET



Material Number	BIDW50N65T TO-247		
Product Line	Semiconductor		
Compliance Date	2021-06-23		
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	1.04%	0.0029%	0.28%
				Silicon	7440-21-3	87.70%	0.2434%	
				Aluminum	7429-90-5	6.26%	0.0174%	
				Silver	7440-22-4	0.24%	0.0007%	
				Titanium	7440-32-6	1.68%	0.0047%	
				Nickel	7440-02-0	3.08%	0.0085%	
	Chip2			Silicon dioxide	14808-60-7	0.28%	0.0008%	
				Platinum	7440-06-4	0.03%	0.0001%	
				Silicon	7440-21-3	98.88%	0.2744%	
				Aluminum	7429-90-5	0.36%	0.0010%	
				Silver	7440-22-4	0.02%	0.0001%	
				Titanium	7440-32-6	0.24%	0.0007%	
				Nickel	7440-02-0	0.19%	0.0005%	
2	Al wire	Aluminum	0.00616	Aluminum	7429-90-5	100.00%	0.1011%	0.10%
3	Soft Solder	PbSn10	0.0075	Lead	7439-92-1	90.00%	0.1108%	0.12%
				Tin	7440-31-5	10.00%	0.0123%	
4	Lead frame	Copper	4.0642	Copper	7440-50-8	99.87%	66.649%	66.74%
				Iron	7439-89-6	0.10%	0.067%	
				Phosphorus	7723-14-0	0.03%	0.020%	

CASRN: CAS Registry Number® is a Registered Trademark of the American Chemical Society

5	Mold Compound	Resin	1.96399	Silica, vitreous	60676-86-0	80.00%	25.7995%	32.25%
				Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2	10.00%	3.2249%	
				Phenol-formaldehyde polymer	9003-35-4	7.00%	2.2575%	
				Zinc borate hydrate	138265-88-0	1.00%	0.3225%	
				Carbon black	1333-86-4	1.00%	0.3225%	
				3-Mercaptopropyl trimethoxylsilane 3-	4420-74-0	1.00%	0.3225%	
6	Plating	Matte-100% tin	0.03125	Tin	7440-31-5	100.00%	0.5131%	0.51%
		Total weight	6.090g					

This Document was updated on: 2021/06/23

(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)

CASRN: CAS Registry Number® is a Registered Trademark of the American Chemical Society