

Construction element	Material group	Materials	CAS if available	Average mass (%)	Sum (%)	Mass (mg)	ppm
Die	Silicon	Silicon	7440-21-3	1.485	1.48	1.66	14823
Leadframe	Copper Alloy	Copper	7440-50-8	44.363	47.31	49.61	442942
		Iron	7439-89-6	1.094		1.22	10919
		Zinc	7440-66-6	0.059		0.07	591
		Phosphorus	7723-14-0	0.036		0.04	364
		Lead	7439-92-1	0.014		0.02	136
		Silver	7440-22-4	1.593		1.78	15901
		Nickel	7440-02-0	0.157		0.18	1563
Die Attach Solder	PbSn5Ag2.5	Lead	7439-92-1	0.553	0.60	0.62	5534
		Tin	7440-31-5	0.030		0.03	299
		Silver	7440-22-4	0.015		0.02	150
Bonding Wires	Gold	Gold	7440-57-5	0.290	0.29	0.33	2902
Encapsulation	GE1030M	Epoxy resin	-	3.936	48.86	4.40	39297
		Phenol Resin	-	3.936		4.40	39297
		Silica	60676-86-0	35.069		39.21	350145
		Metal Hydroxide	-	4.930		5.51	49219
		Carbon Black	1333-86-4	0.164		0.18	1639
		Quartz	14808-60-7	0.822		0.92	8205
Leadfinish	Matte Tin	Tin	7440-31-5	1.610	1.61	1.80	16073
Sum in Total:					100.00	111.99	

Fluctuation Margin: ±10%

This environmental data is based on information provided by our suppliers; we believe it to be correct but do not routinely validate it by measurement.

The information is for guidance only, and DZS does not guarantee its absolute accuracy or completeness.

The active part of each device is a silicon chip doped at atomic levels (some tens of ppb) with Phosphorus, Boron and Arsenic. The back of the die is raw or metallized with thin layers of Titanium, Nickel, Silver or Gold in order to enhance the die bonding to the header or leadframe. These and other substances are not reported as being present in Zetex products where their concentration is less than 20ppm, as they are not considered detectable by normal analytical methods.

The lead contained within the solder die attach is exempted from the RoHS Directive 2002/95/EC as defined in Annex clause 7.

This publication is issued to provide outline information only which (unless agreed by the Company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or be regarded as a representation relating to the products or services concerned. The Company reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service.

Sales offices

The Americas

4949 Hedgcoxe Road,
#110, Plano, TX 75024,
Tel: (+1) 972-987 3900

Europe

Kustermannpark
Balanstraße 59,
D-81541 München
Germany
Tel: (+49) 894 549 490
Fax: (+49) 894 549 4949

Taiwan

7F, No. 50,
Min Chuan Road
Hsin-Tien
Taipei, Taiwan
Tel: (+886) 289 146 000
Fax: (+886) 289 146 639

Shanghai

Rm. 606, No.1158
Changning Road
Shanghai, China
Tel: (+86) 215 241 4882
Fax (+86) 215 241 4891

Shenzhen

Room A1103-04,
ANLIAN Plaza, #4018
Jintian Road
Futian CBD,
Shenzhen, China
Tel: (+86) 755 882 849 88
Fax: (+86) 755 882 849 99

Korea

6 Floor, Changhwa B/D,
1005-5 Yeongtong-dong,
Yeongtong-gu, Suwon-si,
Gyeonggi-do,
Korea 443-813
Tel: (+82) 312 731 884
Fax: (+82) 312 731 885

Diodes Zetex products are distributed worldwide. For details, see <http://www.diodes.com>