

## **Zetex Material Data Sheet**

Reference: SOT23 Eutectic Revision date: August 2006 Review Date: August 2007

Construction element	Material group	Materials	CAS (where available)	Average mass (%)	Sum (%)	Mass (mg)	ppm
Die Composition	Silicon	Silicon	7440-21-3	3.70	3.70	0.296	37000
Leadframe	Iron/ Nickel Alloy	Iron	7439-89-6	14.79	32.26	1.183	147864
		Nickel	7440-02-0	11.16		0.893	111595
		Silicon	7440-21-3	0.08		0.006	797
		Cobalt	7440-48-4	0.27		0.021	2657
		Manganese	7439-96-5	0.21		0.017	2126
		Chromium	7440-47-3	0.07		0.005	664
		Copper	7440-50-8	3.90		0.312	39000
		Silver	7440-22-4	1.79		0.143	17900
Wires	Gold	Gold	7440-57-5	1.04	1.04	0.083	10400
Encapsulation		Phenolix resin	37382-079-9	7.75	61.65	0.620	77500
		Epoxy resin	9003-35-4	7.75		0.620	77500
		Brominated Epoxy	68541-56-0	0.50		0.040	5000
		Silica	7631-86-9	43.80		3.504	438000
		Antimony oxide	1309-64-4	1.54		0.123	15400
		Carbon Black	1333-86-4	0.31		0.025	3097
Termination Finish	Matte Tin	Tin	7440-31-5	1.25	1.25	0.100	12540
	•	•		Sum in Total:	100	7.997	

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 Zetex 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 metallised 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.

This part complies with EC Directive 2002/95/EC and is suitable for usage in applications that require compliance with WEEE.

The Company reserves the right to alter without notice the specification, design, price or conditions of supply of any product or service.

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