

Material Composition Declaration

Package Information

Package	Package Weight (mg)	Terminal Finish	MSL Rating
GBP	1700	Matte Tin (Sn)	N/A

Product Group

Type No.	Description
GBP200 – GBP210	Bridge Rectifier 2.0A 50V – 1000V
GBP400 – GBP410	Bridge Rectifier 4.0A 50V – 1000V

Component	Material	Substance	CAS No.	Material Mass (%)	Material Mass (mg)	Component Mass (%)	Component Mass (mg)	PPM
Die	Doped Silicon*	Si	7440-21-3	100.00	5.95	0.35	5.95	3500
Die Attach	Solder Alloy	Pb	7439-92-1	92.50	62.27	3.96	67.32	36629
		Sn	7440-31-5	5.00	3.37			1982
		Ag	7440-22-4	2.50	1.68			988
Leadframe	Copper Alloy	Cu	7440-50-8	97.78	657.59	39.56	672.52	386818
		Fe	7439-89-6	2.15	14.46			8505
		Zn	7440-66-6	0.07	0.47			277
Plating	Matte Tin	Sn	7440-31-5	100.00	19.72	1.16	19.72	11600
Encapsulation	EMC	Silica	7631-86-9	74.91	700.03	54.97	934.49	411780
		Epoxy Resin	29690-82-2	23.13	216.15			127146
		Sb ₂ O ₃	1309-64-4	0.98	9.16			5387
		Brominated Epoxy Resin	6386-73-8	0.98	9.16			5387

Tolerance ±10%

*Dopant and metallization of the silicon die are not reported in this statement where their concentration is less than the minimum reportable level per EIA JIG-101.

Data disclosed herewith is approximate and is based on information from suppliers surveys, Material Safety Datasheet, engineering calculations and measurements. Won-Top Electronics(WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. WTE reserves the right to change any or all information herein without further notice.

RoHS Declaration

The European Parliament and of the Council on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronics Equipment (RoHS) directive restricts the concentration of Lead (Pb), Mercury (Hg), Hexavalent Chromium (Cr6+), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBD), Bis(2-ethylhexyl) Phthalate (DEHP), Butyl Benzyl Phthalate (BBP), Dibutyl Phthalate (DBP) and Diisobutyl Phthalate (DIBP) to 0.1%(1000 PPM) and restricts the concentration of Cadmium (Cd) to 0.01%(100 PPM) in homogeneous materials of electronics products.

The product group listed above and the homogenous materials are compliant with the Directive 2011/65/EU and amending EU Directive 2015/863/EU. WTE warrants that all its packing, components and/or products supplied to the Customer and/or its affiliated companies or designated contractors do not contain these hazardous substances in quantity levels higher than or equal to the thresholds to these directives.

Exemptions as declared for the directive are:

- 7(a) Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- 7(c)-I Lead in glass (applicable for glass passivated silicon die).