

## Material Composition Declaration

### Package Information

Package	Package Weight (mg)	Terminal Finish	MSL Rating
KBPC-PS	20000	Nickel (Ni)	N/A

### Product Group

Type No.	Description
GBPC1000PS – GBPC1016PS	Bridge Rectifier 10A 50V – 1600V
KBPC1000PS – KBPC1012PS	Bridge Rectifier 10A 50V – 1200V
GBPC1500PS – GBPC1516PS	Bridge Rectifier 15A 50V – 1600V
KBPC1500PS – KBPC1512PS	Bridge Rectifier 15A 50V – 1200V
GBPC2500PS – GBPC2516PS	Bridge Rectifier 25A 50V – 1600V
KBPC2500PS – KBPC2512PS	Bridge Rectifier 25A 50V – 1200V
GBPC3500PS – GBPC3516PS	Bridge Rectifier 35A 50V – 1600V
KBPC3500PS – KBPC3512PS	Bridge Rectifier 35A 50V – 1200V
GBPC4000PS – GBPC4016PS	Bridge Rectifier 40A 50V – 1600V
KBPC4000PS – KBPC4012PS	Bridge Rectifier 40A 50V – 1200V
GBPC5000PS – GBPC5016PS	Bridge Rectifier 50A 50V – 1600V
KBPC5000PS – KBPC5012PS	Bridge Rectifier 50A 50V – 1200V

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	40.00	0.20	40.00	2000
Die Attach	Solder Alloy	Pb	7439-92-1	92.50	197.95	1.07	214.00	9898
		Sn	7440-31-5	5.00	10.70			535
		Ag	7440-22-4	2.50	5.35			268
Leadframe	Copper Alloy	Cu	7440-50-8	62.00	2168.76	17.49	3498.00	108438
		Zn	7440-66-6	37.00	1294.26			64713
		Fe	7439-89-6	1.00	34.98			1749
Plating	Nickel	Ni	7440-02-0	100.00	10.00	0.05	10.00	500
Jumper	Copper Alloy	Cu	7440-50-8	99.99	2121.79	10.61	2122.00	106090
		Fe	7439-89-6	0.01	0.21			11
Encapsulation	EMC	SiO <sub>2</sub>	14808-60-7	64.66	4665.87	36.08	7216.00	233294
		Epoxy Resin	29690-82-2	29.40	2121.49			106075
		Brominated Epoxy Resin	6386-73-8	2.97	214.32			10716
		Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	2.97	214.32			10716
Case	Epoxy Case with Heatsink	Silica	7631-86-9	60.20	4153.80	34.50	6900.00	207690
		Epoxy Resin	29690-82-2	25.80	1780.20			89010
		Al	7429-90-5	14.00	966.00			48300

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).