



## Material Composition Declaration

### Package Information

Package	Package Weight (mg)	Terminal Finish	MSL Rating
DIL	380	Matte Tin (Sn)	N/A

### Product Group

Type No.	Description
DF005 – DF10	Bridge Rectifier 1.0A 50V – 1000V
DF150 – DF1510	Bridge Rectifier 1.5A 50V – 1000V
DF200 – DF2010	Bridge Rectifier 2.0A 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	4.10	1.08	4.10	10789
Die Attach	Solder Alloy	Pb	7439-92-1	92.50	14.06	4.00	15.20	37000
		Sn	7440-31-5	5.00	0.76			2000
		Ag	7440-22-4	2.50	0.38			1000
Leadframe	Copper Alloy	Cu	7440-50-8	97.78	132.65	35.70	135.66	349079
		Fe	7439-89-6	2.15	2.92			7684
		Zn	7440-66-6	0.07	0.09			237
Plating	Matte Tin	Sn	7440-31-5	100.00	3.80	1.00	3.80	10000
Encapsulation	EMC	Silica	7631-86-9	74.91	165.73	58.22	221.24	436132
		Epoxy Resin	29690-82-2	23.13	51.17			134658
		Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	0.98	2.17			5711
		Brominated Epoxy Resin	6386-73-8	0.98	2.17			5711

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) 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. 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 this directive.

#### 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).