



Material Composition Declaration

Package Information

Package	Package Weight (mg)	Terminal Finish	MSL Rating
SMB	93	Matte Tin (Sn)	1

Product Group

Type No.	Description
SK12 – SK1200	Diode Schottky 1A 20V – 200V
MBRS230L – MBRS2100L	Diode Schottky 2A 30V – 100V
SK22 – SK2200	Diode Schottky 2A 20V – 200V
SS22 – SS210	Diode Schottky 2A 20V – 100V
SR32 – SR3200	Diode Schottky 3A 20V – 200V
SS32 – SS310	Diode Schottky 3A 20V – 100V
SR52 – SR5200	Diode Schottky 5A 20V – 200V
ER1A – ER1J	Diode Superfast 1A 50V – 600V
MURS160	Diode Superfast 1A 600V
ER2A – ER2J	Diode Superfast 2A 50V – 600V
UF1A – UF1M	Diode Ultrafast 1A 50V – 1000V
UF2A – UF2M	Diode Ultrafast 2A 50V – 1000V
FR1A – FR1M	Diode Fast 1A 50V – 1000V
FR2A – FR2M	Diode Fast 2A 50V – 1000V
S1A – S1M	Diode Standard 1A 50V – 1000V
S2A – S2M	Diode Standard 2A 50V – 1000V
S3AB – S3MB	Diode Standard 3A 50V – 1000V
P6SMB / P6SMBJ Series	Diode TVS 600W
1SMB5913B – 1SMB5956B	Diode Zener 3.0W
1SMB5333B – 1SMB5388B	Diode Zener 5.0W

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	2.98	3.20	2.98	32043
Die Attach	Solder Alloy	Pb	7439-92-1	92.50	2.16	2.51	2.33	23175
		Sn	7440-31-5	5.00	0.12			1253
		Ag	7440-22-4	2.50	0.06			626
Leadframe	Copper Alloy	Cu	7440-50-8	97.50	33.78	37.26	34.65	363266
		Fe	7439-89-6	2.40	0.83			8942
		Zn	7440-66-6	0.10	0.03			373
Plating	Matte Tin	Sn	7440-31-5	100.00	1.02	1.10	1.02	10968
Encapsulation	EMC	Silica	7631-86-9	74.91	38.97	55.93	52.02	419013
		Epoxy Resin	29690-82-2	23.13	12.03			129379
		Sb ₂ O ₃	1309-64-4	0.98	0.51			5482
		Brominated Epoxy Resin	6386-73-8	0.98	0.51			5482

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).