



Material Composition Declaration

Package Information

Package	Package Weight (mg)	Terminal Finish	MSL Rating
SMA	64	Matte Tin (Sn)	1

Product Group

Type No.	Description
SS12 – SS1200	Diode Schottky 1A 20V – 200V
SR22 – SR2200	Diode Schottky 2A 20V – 200V
SX32 – SX3200	Diode Schottky 3A 20V – 200V
ES1A – ES1J	Diode Superfast 1A 50V – 600V
MURA160	Diode Superfast 1A 600V
ER2AA – ER2JA	Diode Superfast 2A 50V – 600V
US1A – US1M	Diode Ultrafast 1A 50V – 1000V
RS1A – RS1M	Diode Fast 1A 50V – 1000V
GS1A – GS1M	Diode Standard 1A 50V – 1000V
S2AA – S2MA	Diode Standard 2A 50V – 1000V
P4SMAJ Series	Diode TVS 400W
SMA6J Series	Diode TVS 600W
1SMA4728A – SZ1330A	Diode Zener 1.0W
1SMA5913B – 1SMA5956B	Diode Zener 1.5W
1SMA2EZ2.7D5 – 1SMA2EZ330D5	Diode Zener 2.0W

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	1.28	2.00	1.28	20000
Die Attach	Solder Alloy	Pb	7439-92-1	92.50	1.94	3.28	2.10	30352
		Sn	7440-31-5	5.00	0.11			1641
		Ag	7440-22-4	2.50	0.05			820
		Cu	7440-50-8	97.50	18.16			283816
Leadframe	Copper Alloy	Fe	7439-89-6	2.40	0.45	29.11	18.63	6986
		Zn	7440-66-6	0.10	0.02			291
		Plating	Matte Tin	Sn	7440-31-5			100.00
Encapsulation	EMC	Silica	7631-86-9	74.91	30.71	64.05	40.99	479775
		Epoxy Resin	29690-82-2	23.13	9.48			148140
		Sb ₂ O ₃	1309-64-4	0.98	0.40			6277
		Brominated Epoxy Resin	6386-73-8	0.98	0.40			6277

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).