



# Material Declaration Sheet

Vishay General Semiconductor - VGSC

Date 4/Jan/22

## Part / Product Family Details

Vishay Part Number	RoHS Compliance Status	RoHS Compliance Date Code dd-mm-yyyy	Total product Weight (gm)	Resistance value	3rd Party Lab ICP Test Report Available	Manufacturing Location	Number of Exemption used
BY251P-E3 to BY255P-E3	YES WITH EXEMPTION	01-12-2004	1.1	NA	Yes	China	One

## Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (gm)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Chip	Electronics (e.g. pc boards, displays)	Silicon and others (business secret)	7440-21-3	0.00355	100.00	1000000	0.32	
Lead Wire	Copper (e.g. copper amounts in cable harnesses)	Copper	744-50-8	0.78714	100.00	1000000	71.56	
Solder 92.5	Other special metals	Lead	7439-92-1	0.00649	92.50	925000	0.59	Exemption No:-7 a
		Tin	7440-31-5	0.00035	5.00	50000	0.03	
		Silver	7440-22-4	0.00018	2.50	25000	0.02	
Silastic	Electronics (e.g. pc boards, displays)	Silastic	-	0.00418	100.00	1000000	0.38	
Encapsulation	Other duromers	SiO2	14808-60-7	0.20374	70.00	700000	18.52	
		Epoxy resin	29690-82-2	0.04258	15.00	150000	3.87	
		Phenolic resin	9003-35-4	0.02838	10.00	100000	2.58	
		Brominated epoxy resin	40039-93-8	0.00568	2.00	20000	0.52	
		Sb2O3	1309-64-4	0.00568	2.00	20000	0.52	
		Carbon black	1333-86-4	0.00284	1.00	10000	0.26	
Surface finish	Other special metals	Tin	7440-31-5	0.00917	100.00	1000000	0.83	
Marking	Electronics (e.g. pc boards, displays)	Polyester Acrylic oligomer	-	0.00001	17.00	170000	0.00	
		Rosin, maleated, polymer withglycerol	-	0.00001	10.00	100000	0.00	
		Acrylic ester monomer A	-	0.00001	25.00	250000	0.00	
		Acrylic ester monomer B	94108-97-1	0.00001	15.00	150000	0.00	
		Photo initiator	71868-10-5	0.00000	3.00	30000	0.00	
		Sensitizer	90-93-7	0.00000	2.00	20000	0.00	
		Carbon black	1333-86-4	0.00001	10.00	100000	0.00	
		Titanium dioxide	13463-67-7	0.00001	10.00	100000	0.00	
		Pigments	-	0.00000	5.00	50000	0.00	
		Additives	-	0.00000	3.00	30000	0.00	

**EU-RoHS Directive- 2015/863/EU** MCV of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and MCV of 0.01% by mass cadmium ,Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)

**Exemption Used** 7(a) - Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)

**Note :-** (i) All information is based on data received from our vendors & subjected to change without prior notice.  
(ii) Substance weight are derived from MSDS.

Build Vishay  
into your Design

Vishay General Semiconductor - VGSC  
No.88 6th Avenue TEDA Tianjin P.R. China

ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENTS

One of the World's Largest Manufacturers of  
Discrete Semiconductors and Passive Components