

## Material Declaration Sheet

Vishay General Semiconductor - VGSC

Date 22/Aug/22

Part /	' Product	Family	Details
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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
ES3A-M3 to ES3D-M3 ES3F-M3 to ES3G-M3 ESH3B-M3 to ESH3D-M3 MURS320-M3 to MURS360-M3 RS3A-M3 to RS3K-M3 S3A-M3 to S3M-M3 S5A-M3 to S5M-M3 S5MS-M3 MURS460-M3 1.5SMCnn(A)-M3 SM15TnnA-M3 SMCGxx(A)-M3 SMCJxx(A)-M3 1.5SMCnnC(A)-M3	YES WITH EXEMPTION	01-12-2004	0.21	N/A	Yes	China	Two

## 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)	-	0.00496	100.00	1000000	2. 36	Exemption No:7(c)-I
Lead Frame	Copper (e.g. copper amounts in cable harnesses)	Copper	7440-50-8	0.07306	100.00	1000000	34.79	
Solder 92.5	Other special metals	Lead	7439-92-1	0.00777	92.50	925000	3.70	Exemption No:7(a)
		Tin	7440-31-5	0.00042	5.00	50000	0.20	
		Silver	7440-22-4	0.00021	2.50	25000	0.10	
Encapsulation	Other duromers	Silica	60676-86-0	0.09730	80.00	800000	46.33	
		Epoxy Resin	29690-82-2	0.01216	10.00	100000	5. 79	
		Phenol Resin	9003-35-4	0.01156	9.50	95000	5. 50	
		Carbon Black	1333-86-4	0.00060	0.50	5000	0.29	
Surface finish	Other special metals	Tin	7440-31-5	0.00196	100.00	1000000	0.93	

EU-RoHS Directive- 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 2015/863/EU 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)

7(c)-I - Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

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.



Vishay General Semiconductor - VGSC
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ONE OF THE WORLD'S LARGEST MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENTS

