VISHAY.

Material Declaration Sheet

Vishay General Semiconductor - PDD

Date	13/Aug/20

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 Exemptions Used
1N3611GP-E3 to 1N3614GP-E3 1N4001GP-E3 to 1N4007GP-E3 1N4245GP-E3 to 1N4249GP-E3 1N4933GP-E3 to 1N4937GP-E3 1N4942GP-E3 to 1N4948GP-E3 BA157GP-E3 to BA159GP-E3 1N3957GP-E3 GP10-4002-E3S BA159DGP-E3 BYW27-100GP-E3 BYW27-200GP-E3 BY206GP-E3 BYM27-400GP-E3 BYW27-600GP-E3 GP02-20-E3 BYM27-800GP-E3 BYX10GP-E3 GP02-25-E3 GI250-1-E3 to GI250-4-E3 GP08A-E3 to GP08J-E3 GP10-4002-E3 to GP10-4007-E3 GP10A-E3 to GP10Y-E3 RGP10A-E3 to RGP10M-E3 GP02-40-E3 GP10G-132E3 GP10G-7010E3 GP10J-051-E3 GP10J-6600E3 GP10K-041E3 GP02-30-001E3 GP02-30-E3 GP02-35-E3 GP10M-7007E3 BY520-14E-E3 BY520-16E-E3 RGP10A-013E3 RGP-10D5303E3 RGP10G-6038E3 RGP10J-057E3 RGP10J-5025E3 RGP02-17E-E3 RGP10K-5008E3 RGP10KE-6520E3 RGP10J-7008E3 EGP10G-E3S SBYV26C-5001E3 SBYV26C-E3 1N4001GPE-E3 to 1N4007GPE-E3 1N4933GPE-E3 to 1N4937GPE-E3 1N4942GPE-E3 to 1N4948GPE-E3 BA157GPE-E3 to BA159GPE-E3 BA159DGPE-E3 BA159GPE-E3 GP08AE-E3 to GP08JE-E3 GP10AE-E3 to GP10WE-E3 GP10-4002E-E3 to GP10-4007E-E3 RGP02-12E-E3 to RGP02-20E-E3 EGP10AE-E3 to EGP10GE-E3 RGP10AE-E3 to RGP10ME-E3 EGP10A-E3 to EGP10G-E3	YES WITH EXEMPTION	01-12-2004	0.3	N/A	Yes	China	One

Technical Information: **refer to** http://www.vishay.com/how/leadfree/#summary

Terminal Plating / Grid Array Material	Terminal Base Alloy	JESD-97 Pb-Free Material Code Marking	J-STD-20D MSL Rating	Reflow Peak Process Body Temperature	Reflow Maximum number of cycles	Reflow Max.Time at Peak Temperature (sec)	Soldering Compatibility (SnPb/Pb-Free)

Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (gm)	With respect to Homogenous Material %	With respect to Homogenous Material ppm	% with respect to Total Product Weight	RoHS Exemptions Used
Chip	Electronics (e.g. pc boards, displays)	Silicon and others (business secret)	-	0.00040	100.00	1000000	0.13	
Molybdenum Slug	Other special metals	Molybdenum (Mo)	7439-98-7	0.01740	100.00	1000000	5.80	
Glass Powder	Ceramics / glass	Diboron-trioxide	1303-86-2	0.00264	30.00	300000	0.88	
		Silicon dioxide	7631-86-9	0.00070	8.00	80000	0.23	
		Zinc oxide	1314-13-2	0.00528	60.00	600000	1.76	
		Lead-monoxide	1317-36-8	0.00018	2.00	20000	0.06	Exemption No:7(c)-I
Lead Wire	Copper (e.g. copper amounts in cable harnesses)	Copper	7440-50-8	0.23030	100.00	1000000	76.77	
Solder 80	Other special metals	Silver	7440-22-4	0.00015	15.00	150000	0.05	
		Copper	7440-50-8	0.00080	80.00	800000	0.27	
		Phosphorus	7723-14-0	0.00005	5.00	50000	0.02	
Encapsulation	Other duromers	Silicon dioxide (Si02)	14808-60-7	0.02943	80.20	802000	9.81	
		Epoxy Resin	29690-82-2	0.00472	12.85	128500	1.57	
		Phenolic Resin	9003-35-4	0.00182	4.95	49500	0.61	
		Antimony trioxide (Sb203)	1309-64-4	0.00037	1.00	10000	0.12	
		Brominated Epoxy	68928-70-1	0.00037	1.00	10000	0.12	
Surface finish	Other special metals	Tin	7440-31-5	0.00540	100.00	1000000	1.80	
Marking	Other special metals	Synthetic resin	53192-18-0	0.00003	65.00	650000	0.01	
		Starting agent	21245-01-2	0.00001	10.00	100000	0.00	
		Dye	7429-90-5	0.00001	15.00	150000	0.00	
		Additive	947-19-3	0.00000	5.00	50000	0.00	
		Silicon dioxide	112945-52-5	0.00000	5.00	50000	0.00	

EU-RoHS Directive-2011/65/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

This MDS vaild for List of PN's

Exemption Used 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.

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