



Material Declaration Sheet

Vishay General Semiconductor - PDD

Date 28/Jul/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
AR1PG-(H)M3 AR1PD-(H)M3 AR1PM-(H)M3 AS1PD-(H)M3 to AS1PM-(H)M3 AU1PD-(H)M3 to AU1PM-(H)M3	YES WITH EXEMPTION	01-12-2004	0.024	N/A	Yes	China	Two

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 Total Product Weight	RoHS Exemptions Used
					%	ppm		
Chip	Electronics (e.g. pc boards, displays)	Silicon and others (business secret)	-	0.00050	100.00	1000000	2.09	Exemption No:7(c)-I
Lead Frame	Copper (e.g. copper amounts in cable harnesses)	Copper	7440-50-8	0.01291	100.00	1000000	53.81	
Solder 92.5	Other special metals	Lead	7439-92-1	0.00122	92.50	925000	5.09	Exemption No:7(a)
		Tin	7440-31-5	0.00007	5.00	50000	0.27	
Encapsulation	Other duromers	Silver	7440-22-4	0.00003	2.50	25000	0.14	
		Fused Silica	60676-86-0	0.00703	78.00	780000	29.28	
		Solid Epoxy Resin-2	71296-97-4	0.00009	1.00	10000	0.38	
		Solid Epoxy Resin	93705-66-9	0.00054	6.00	60000	2.25	
		Phenol Resin	26834-02-6	0.00054	6.00	60000	2.25	
		Metal Hydroxide	1309-42-8	0.00076	8.40	84000	3.15	
Surface finish	Other special metals	Carbon Black	1333-86-4	0.00005	0.60	6000	0.23	
		Tin	7440-31-5	0.00026	100.00	1000000	1.06	

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)

This MDS valid for List of PN's

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

2nd 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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into your Design

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