



# 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
V8P10(H)M3 V8P12(H)M3 V8P20(H)M3 V8PM12(H)M3 V8PL6(H)M3 V10P8(H)M3 V10P10(H)M3 V10P20-M3 V10P45(H)M3 V10PL45-M3 V10PM12-M3 V10PN50-M3 V12P10(H)M3 V12P12(H)M3 V12PM12-M3 V12P20-M3 V15P45(H)M3 V15PL50-M3 V15PN60-M3 V15PN60-5700M3 V20PL50-M3 V20PL60-M3 V25PL60-M3 V8P45(H)M3 V12P45(H)M3 V8P6(H)M3 V25PN60-M3 V10P6(H)M3 V12P6(H)M3 V15P6(H)M3 V8P8(H)M3 V10P8(H)M3 V12P8(H)M3 V15P8(H)M3 V8PM15-M3 V10PM15-M3 V12PM15-M3 V15PM15-M3 V8PM15HM3 V10PM15HM3 V12PM15HM3 V15PM15HM3 V8PM45-M3 V10PM45-M3 V12PM45-M3 V15PM45-M3 V8PM6-M3 V10PM6-M3 V12PM6-M3 V15PM6-M3 V8PM45HM3 V10PM45HM3 V12PM45HM3 V15PM45HM3 V8PM6HM3 V10PM6HM3 V12PM6HM3 V15PM6HM3 V8PM10(H)M3 V8P10-5300M3 V8P15(H)M3 V10PM10(H)M3 V10P12-M3 V10P15(H)M3 V10P45S-M3 V12PM10(H)M3 V12P12-5001M3 V12P12-5300M3 V12P15(H)M3 V15P10(H)M3 V15PM10(H)M3 V15P12(H)M3 V15PM12(H)M3 V15P15(H)M3 V15P45S-M3 V8P10HM3_A V8PM12HM3_A V10PM12HM3_A V12PM12HM3_A V8PM10(H)M3 V15P22-(H)M3	YES WITH EXEMPTION	01-12-2004	0.1	N/A	Yes	China	One

## Technical Information: refer to <http://www.vishay.com/doc/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)	-	0.00508	100.00	1000000	5.08	
Lead Frame	Copper (e.g. copper amounts in cable harnesses)	Copper	7440-50-8	0.06015	100.00	1000000	60.15	
Solder 92.5	Other special metals	Lead	7439-92-1	0.00076	92.50	925000	0.76	Exemption No:7(a)
		Tin	7440-31-5	0.00004	5.00	50000	0.04	
Encapsulation	Other duromers	Silver	7440-22-4	0.00002	2.50	25000	0.02	
		Fused Silica	60676-86-0	0.02502	78.00	780000	25.02	
		Solid Epoxy Resin-2	71296-97-4	0.00032	1.00	10000	0.32	
		Solid Epoxy Resin	93705-66-9	0.00192	6.00	60000	1.92	
		Phenol Resin	26834-02-6	0.00192	6.00	60000	1.92	
		Metal Hydroxide	1309-42-8	0.00269	8.40	84000	2.69	
		Carbon Black	1333-86-4	0.00019	0.60	6000	0.19	
Surface finish	Other special metals	Tin	7440-31-5	0.00188	100.00	1000000	1.88	

**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 PM's

**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.

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