



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
BYQ28E-xxx-(H)E3 BYT28-xxx-(H)E3 BYV32-xxx-(H)E3 FEP6AT-(H)E3 to FEP6DT-(H)E3 FEP16AT-(H)E3 to FEP16JT-(H)E3 G12401-(H)E3 to G12404-(H)E3 UG8HCT-(H)E3 to UG8JCT-(H)E3 UG10BCT-(H)E3 to UG10DCT-(H)E3 UG10FCT-(H)E3 to UG10GCT-(H)E3 UG18ACT-(H)E3 to UG18DCT-(H)E3	YES WITH EXEMPTION	01-12-2004	1.85	N/A	Yes	China	Two

Technical Information: refer to <http://www.vishay.com/doc/1061700/20mmx20mm>

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)	-	0.00250	100.00	1000000	0.14	Exemption No:7(c)-I
Lead Frame	Copper (e.g. copper amounts in cable harnesses)	Copper	7440-50-8	1.18935	100.00	1000000	64.29	
Bridge Frame	Copper alloys	Copper	7440-50-8	0.04009	99.85	998501	2.17	
		Nickel	7440-02-0	0.00006	0.15	1499	0.00	
Solder 95	Other special metals	Lead	7439-92-1	0.01308	95.00	950000	0.71	Exemption No:7(a)
		Tin	7440-31-5	0.00069	5.00	50000	0.04	
Encapsulation	Other duromers	Quartz (SiO2)	14808-60-7	0.40793	70.00	700000	22.05	
		Enichlorohydrin, o-cresol, formalde polymer	29690-82-2	0.09324	16.00	160000	5.04	
		Phenol-formaldehyde resin	9003-35-4	0.06993	12.00	120000	3.78	
		Antimony oxide (Sb2O3)	1309-64-4	0.00583	1.00	10000	0.32	
		Carbon-Black	1333-86-4	0.00146	0.25	2500	0.08	
		Additive & know-how	-	0.00309	0.75	7500	0.24	
Surface finish	Other special metals	Tin	7440-31-5	0.02147	100.00	1000000	1.16	
Marking	Electronics (e.g. pc boards, displays)	Synthetic resin	53192-18-0	0.00005	65.00	650000	0.00	
		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-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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Vishay General Semiconductor - PDD
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