



Material Declaration Sheet

Vishay Inter-technology

Date 2/10/2021

Part / Product Family Details

Part / Family Series	RoHS Compliance Status	RoHS Compliance Date Code dd-mmm-yyyy	Total product Weight (mg)	Value Range	3rd Party Lab ICP Test Report Available	Manufacturing Location	Number of Exemptions Used
MBA0204 series (All values except 4M87)	YES	02-Jun-2005	122.65	All values except 4M87	Yes		0

Technical Information

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)
Matte Sn	CU Alloy	e3	Not Applicable	260 ° C	3	40	Backward & Forward

Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (mg)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Ceramic core	Ceramics / glass			8.16000000				
		Aluminiumoxide	1344-28-1	7.30000000	89.460784	894608	5.951896	0 - None
		Glass former	system	0.05000000	0.612745	6127	0.040766	0 - None
		Silicondioxide	7631-86-9	0.81000000	9.926471	99265	0.660416	0 - None
CU-ETP1	3.1 Copper			98.53000000				
		Copper	7440-50-8	98.43147000	99.900000	999000	80.253950	0 - None
		Miscellaneous	system	0.09853000	0.100000	1000	0.080334	0 - None
EP-QD 35	Other duromer			1.92000000				
		Epoxy resin	25068-38-6	1.25000000	65.104167	651042	1.019160	0 - None
		silica	60676-86-0	0.67000000	34.895833	348958	0.546270	0 - None
Nickel alloy layer	Nickel alloys			0.01000000				
		Chromium	7440-47-3	0.00400000	40.000000	400000	0.003261	0 - None
		Nickel	7440-02-0	0.00600000	60.000000	600000	0.004892	0 - None
Nickel plating	Nickel alloys			0.15000000				
		Miscellaneous	system	0.00015000	0.100000	1000	0.000122	0 - None
		Nickel	7440-02-0	0.14985000	99.900000	999000	0.122177	0 - None
Sn99.9	Other special metal			5.73000000				
		Miscellaneous	system	0.00573000	0.100000	1000	0.004672	0 - None
		Tin	7440-31-5	5.72427000	99.900000	999000	4.667159	0 - None
ST 4	Unalloyed,low alloyed			8.15000000				
		Carbon	7440-44-0	0.00855750	0.105000	1050	0.006977	0 - None
		Iron	7439-89-6	8.13777500	99.850000	998500	6.634957	0 - None
		Phosphorus	7723-14-0	0.00183375	0.022500	225	0.001495	0 - None
		Sulfur	7704-34-9	0.00183375	0.022500	225	0.001495	0 - None

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

Exemption Used NONE

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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