



Material Declaration Sheet

Vishay Inter-technology

Date 12/28/2020

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
HVR37 Series	YES		514	All R values	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		
Ceramics	Ceramic/glass			177.0000000				
		Aluminium oxide	1344-28-1	150.1000000	84.80226	848023	29.202335	0 - None
		Barium oxide	1304-28-5	4.4100000	2.49153	24915	0.857977	0 - None
		Magnesium oxide	1309-48-4	3.5000000	1.97740	19774	0.680934	0 - None
		Miscellaneous	System	1.4600000	0.82486	8249	0.284047	0 - None
		Silicon dioxide	7631-86-9	17.5300000	9.90395	99040	3.410506	0 - None
Cu-ETP1	3.1 copper			215.7600000				
		Copper	7440-50-8	215.5442400	99.90000	999000	41.934677	0 - None
		Miscellaneous	System	0.2157600	0.10000	1000	0.041977	0 - None
EP QD 50	Other duromer			41.0000000				
		CI Blue 15	147-14-8	0.1000000	0.24390	2439	0.019455	0 - None
		Epoxy	System	19.9000000	48.53659	485366	3.871595	0 - None
		Quartz	14808-60-7	21.0000000	51.21951	512195	4.085603	0 - None
Nickel chromium alloy	Nickel alloys			0.4000000				
		Chromium	7440-47-3	0.1500000	37.50000	375000	0.029183	0 - None
		Nickel	7440-02-0	0.2500000	62.50000	625000	0.048638	0 - None
Nickel plating	Nickel alloy			0.0200000				
		Miscellaneous	System	0.0000200	0.10000	1000	0.000004	0 - None
		Nickel	7440-02-0	0.0199800	99.90000	999000	0.003887	0 - None
Sn99.9	Other special metal			5.0400000				
		Miscellaneous	System	0.0050400	0.10000	1000	0.000981	0 - None
		Tin	7440-31-5	5.0349600	99.90000	999000	0.979564	0 - None
ST4	Unalloyed,low alloyed steel			74.7800000				
		Aluminium [metal]	7429-90-5	0.1000000	0.13373	1337	0.019455	0 - None
		Carbon	7440-44-0	0.1700000	0.22733	2273	0.033074	0 - None
		Iron	7439-89-6	74.0100000	98.97031	989703	14.398833	0 - None
		Manganese	7439-96-5	0.3000000	0.40118	4012	0.058366	0 - None
		Phosphorus	7723-14-0	0.1000000	0.13373	1337	0.019455	0 - None
		Sulfur	7704-34-9	0.1000000	0.13373	1337	0.019455	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.