



Material Declaration Sheet

Vishay Inter-technology

Date 3/7/2018

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
CRCW1206 e3 All R except (1R to less than 10R)	YES WITH EXEMPTION	16-Oct-2004	8.811775	All R except (1R to less than 10R)	Yes	Israel	1

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)
Tin (Sn)	Other	e3	1	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 substrate	Ceramics / glass	Aluminium Oxide	1344-28-1	7.9570300				
		Magnesium Oxide	1309-48-4	7.6101000	95.64	956400	86.36	0 - None
		Silicon dioxide	7631-86-9	0.0787800	0.99	9901	0.89	0 - None
		Miscellaneous	System	0.2315500	2.91	29100	2.63	0 - None
EP-QD 80	Other duromers			0.0366000	0.46	4600	0.42	0 - None
		Epoxy resin	25068-38-6	0.1233600				
Glass electrical contact	Ceramics / glass			0.0152584	12.37	123690	0.17	0 - None
		Silicon dioxide	7631-86-9	0.1081016	87.63	876310	1.23	0 - None
Glass enamel	Ceramics / glass			0.0046000				
		Lead silicate [Glass]	10099-76-0	0.0045954	99.90	999000	0.05	7(c)-1
Glass Layer	Ceramics / glass			0.0000046	0.10	1000	0.0001	0 - None
		Miscellaneous	System	0.0352500				
Glass electrical contact	Ceramics / glass			0.0007400	2.10	20993	0.01	0 - None
		Lead silicate [Glass]	10099-76-0	0.0345100	97.90	979007	0.39	7(c)-1
Nickel plating	Nickel alloys			0.0264400				
		Lead silicate [Glass]	10099-76-0	0.0132200	50.00	500000	0.15	7(c)-1
		Palladium	7440-05-3	0.0044100	16.68	166793	0.05	0 - None
		Ruthenium oxide	12036-10-1	0.0088100	33.32	333207	0.10	0 - None
Silver electrical contact alloy	Other special metals			0.1476605				
		Nickel	7440-02-0	0.1475128	99.90	999000	1.67	0 - None
Silver layer	Other special metals			0.0001477	0.10	1000	0.002	0 - None
		Miscellaneous	System	0.2255745				
		Chromium	7440-47-3	0.000018	0.001	8	0.00002	0 - None
		Copper	7440-50-8	0.000027	0.001	12	0.00003	0 - None
Silver electrical contact alloy	Other special metals			0.0057600	2.55	25535	0.07	0 - None
		Copper oxide	1317-38-0	0.0057600	2.55	25535	0.07	0 - None
Silver electrical contact alloy	Other special metals			0.2198100	97.44	974445	2.49	0 - None
		Silver	7440-22-4	0.0176200				
Silver electrical contact alloy	Other special metals			0.0176024	99.90	999000	0.20	0 - None
		Silver	7440-22-4	0.0176024	99.90	999000	0.20	0 - None
Sn99.9	Other special metals			0.000176	0.10	1000	0.0002	0 - None
		Miscellaneous	System	0.2742400				
Sn99.9	Other special metals			0.2739658	99.90	999000	3.11	0 - None
		Miscellaneous	System	0.0002742	0.10	1000	0.003	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 7(c)-1 - 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.