



Material Declaration Sheet

Vishay Inter-technology

Date: 3/9/2022

Part / Product Family Details							
Part / Family Series	RoHS Compliance Status	RoHS Compliance Date Code	Total product Weight (mg)	Value Range	Product Type	Manufacturing Location	Number of Exemptions Used
CRCW0402-C series	YES WITH EXEMPTION	01-Jul-2005	0.587021	All R values	Resistor	Vishay BCcomponents Resistor	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)
Matte 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	0.48177	96.00	959988	82.07	0 - None
		Magnesium oxide	1309-48-4	0.00502	1.00	10003	0.86	0 - None
		Silicon dioxide	7631-86-9	0.01506	3.00	30009	2.57	0 - None
				0.00761				
EP-QD 15	Other durometer	Epoxy resin	25068-38-6	0.00632	83.05	830486	1.08	0 - None
		Silicon dioxide	7631-86-9	0.00129	16.95	169514	0.22	0 - None
Glass electrical contact	Ceramics / glass			0.00050				
		Glass w/o declarable substances	65997-17-3	0.00025	50.00	500000	0.04	0 - None
Glass enamel	Ceramics / glass	Nickel	7440-02-0	0.00025	50.00	500000	0.04	0 - None
				0.00430				
Glass layer	Ceramics / glass	Glass w/o declarable substances	65997-17-3	0.00430	99.90	999000	0.73	0 - None
		Miscellaneous	system	0.00000	0.10	1000	0.00	0 - None
Nickel chromium alloy	Nickel alloys	Lead silicate [Glass]	10099-76-0	0.00268	69.97	699739	0.46	7(c)-1
		Ruthenium oxide	12036-10-1	0.00115	30.03	300261	0.20	0 - None
Nickel plating	Nickel alloys			0.00000				
		Chromium	7440-47-3	0.00000	20.00	200000	0.00	0 - None
Silver electrical contact	Other special metals	Nickel	7440-02-0	0.00000	80.00	800000	0.00	0 - None
		Miscellaneous	system	0.03632	0.10	1000	0.01	0 - None
Tin plating	Other special metals	Nickel	7440-02-0	0.03628	99.90	999000	6.18	0 - None
				0.00900				
		Miscellaneous	system	0.00001	0.10	1000	0.00	0 - None
		Silver	7440-22-4	0.00899	99.90	999000	1.53	0 - None
				0.02361				
		Lead	7439-92-1	0.00002	0.08	847	0.00	0 - None
		Tin	7440-31-5	0.02359	99.92	999153	4.02	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.