



Material Declaration Sheet

Vishay Inter-technology

Date: 1/31/2022

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
CRCW2512 e3 (1R to less than 10R)	YES WITH EXEMPTION	16-Oct-2004	39.4498021	1R to less than 10R	Resistor	Vishay BCComponents Buechling	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)
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	34.47196	95.50	955000	87.38	0 - None
		Magnesium oxide	1309-48-4	0.35735	0.99	9900	0.91	0 - None
		Miscellaneous	System	0.21658	0.60	6000	0.55	0 - None
		Silicon dioxide	7631-86-9	1.05040	2.91	29100	2.66	0 - None
						0.55259		
EP-QD-80	Other duromer	Epoxy resin	25068-38-6	0.08841	16.00	160000	0.22	0 - None
		Silicon dioxide	7631-86-9	0.46418	84.00	840000	1.18	0 - None
Glass electrical contact	ceramic/glass			0.01699				
		Chromium	7440-47-3	0.00001	0.05	453	0.00	0 - None
Glass enamel	Ceramics / glass	Lead silicate (Glass)	10099-76-0	0.01698	99.95	999547	0.04	7(c)-I
				0.23670				
		Chromium oxide (III)	1308-38-9	0.00497	2.10	20997	0.01	0 - None
		Lead silicate (Glass)	10099-76-0	0.23173	97.90	979003	0.59	7(c)-I
Glass layer	ceramic/glass			0.27615				
		Lead silicate (Glass)	10099-76-0	0.14470	52.40	523991	0.37	7(c)-I
		Palladium	7440-05-3	0.07152	25.90	258990	0.18	0 - None
		Platinum	7440-06-4	0.05993	21.70	217020	0.15	0 - None
				0.83195				
Silver electrical contact	other special metal	Bismuthous oxide	1304-76-3	0.02547	3.06	30615	0.06	0 - None
		Copper	7440-50-8	0.00001	0.00	14	0.00	0 - None
		Copper oxide	1317-38-0	0.00849	1.02	10205	0.02	0 - None
		Silver	7440-22-4	0.79798	95.92	959166	2.02	0 - None
				0.93543				
Sn99.9	Other special metals	Miscellaneous	System	0.00094	0.10	1000	0.00	0 - None
		Tin	7440-31-5	0.93449	99.90	999000	2.37	0 - None
Tin plating	Nickel alloys			0.50370				
		Miscellaneous	System	0.00050	0.10	1000	0.00	0 - None
		Nickel	7440-02-0	0.50320	99.90	999000	1.28	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)-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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