



# Material Declaration Sheet

Vishay Inter-technology

Date: 2/7/2022

## 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
CRCW0805 e3 (1R to less than 10R)	YES WITH EXEMPTION	16-Oct-2004	4.2950038	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	3.62302	95.64	956399	84.35	0 - None
		Magnesium oxide	1309-48-4	0.03750	0.99	9899	0.87	0 - None
		Miscellaneous	System	0.01743	0.46	4601	0.41	0 - None
		Silicon dioxide	7631-86-9	0.11024	2.91	29101	2.57	0 - None
						0.06443		
EP-QD-80	Other duromers	Epoxy resin	25068-38-6	0.01031	16.00	160000	0.24	0 - None
		Silicon dioxide	7631-86-9	0.05412	84.00	840000	1.26	0 - None
Glass electrical contact	Ceramics / glass			0.00311				
		Lead silicate (Glass)	10099-76-0	0.00311	99.90	999000	0.07	7(c)-I
Glass enamel	Ceramics / glass	Miscellaneous	System	0.00000	0.10	1000	0.00	0 - None
				0.02577				
Glass layer	Ceramics / glass	Chromium oxide (III)	1308-38-9	0.00054	2.09	20900	0.01	0 - None
		Lead silicate (Glass)	10099-76-0	0.02523	97.91	979100	0.59	7(c)-I
Nickel Plating	Nickel alloys			0.01125				
		Lead silicate (Glass)	10099-76-0	0.01124	99.90	999000	0.26	7(c)-I
Silver electrical contact alloy	Other special metals	Miscellaneous	System	0.00001	0.10	1000	0.00	0 - None
		Nickel	7440-02-0	0.08387	99.90	999000	1.95	0 - None
Silver layer	Other special metals			0.08395				
		Chromium	7440-47-3	0.00000	0.00	9	0.00	0 - None
		Copper	7440-50-8	0.00000	0.00	14	0.00	0 - None
		Copper oxide	1317-39-0	0.00388	2.55	25502	0.09	0 - None
		Silver	7440-22-4	0.14826	97.45	974475	3.45	0 - None
Sn99.9	Other special metals			0.01022				
		Palladium	7440-05-3	0.00557	54.46	544600	0.13	0 - None
		Silver	7440-22-4	0.00465	45.54	455400	0.11	0 - None
				0.15594				
		Miscellaneous	System	0.00016	0.10	1000	0.00	0 - None
				0.15578	99.90	999000	3.63	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.