



# Material Declaration Sheet

Vishay Inter-technology

Date 1/24/2022

## 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 (10R to less than 10M)	YES WITH EXEMPTION	16-Oct-2004	4.2950038	10R to less than 10M	Resistor	Vishay BCcomponents Revschlap	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	3.78819	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
		Chromium oxide (III)	1308-38-9	0.00054	2.09	20900	0.01	0 - None
Glass layer	Ceramics / glass	Lead silicate [Glass]	10099-76-0	0.02523	97.91	979100	0.59	7(c)-I
				0.01288				
Nickel Plating	Nickel alloys	Lead silicate [Glass]	10099-76-0	0.00644	50.00	500000	0.15	7(c)-I
		Palladium	7440-05-3	0.00215	16.69	166925	0.05	0 - None
		Ruthenium oxide	12036-10-1	0.00429	33.31	333075	0.10	0 - None
Silver electrical contact alloy	Other special metals			0.08395				
		Miscellaneous	System	0.00008	0.10	1000	0.00	0 - None
Silver layer	Other special metals	Nickel	7440-02-0	0.08387	99.90	999000	1.95	0 - None
				0.15214				
		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	1317-38-0	0.00388	2.55	25502	0.09	0 - None
Silver layer	Other special metals	Silver	7440-22-4	0.14826	97.45	974475	3.45	0 - None
				0.00859				
Sn99.9	Other special metals	Miscellaneous	System	0.00001	0.10	1000	0.00	0 - None
		Silver	7440-22-4	0.00858	99.90	999000	0.20	0 - None
Sn99.9	Other special metals			0.15594				
		Miscellaneous	System	0.00016	0.10	1000	0.00	0 - None
		Tin	7440-31-5	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.

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