



Material Declaration Sheet

Vishay Inter-technology

Date	1/28/2022
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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
CRCW1210 e3 (10R to less than 2K)	YES WITH EXEMPTION	16-Oct-2004	15.2485145	10R to less than 2K	Resistor	Vishay BCcomponents Beyschlag	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			13.43393				
		Aluminium Oxide	1344-28-1	12.82940	95.50	955000	84.14	0 - None
		Magnesium Oxide	1309-48-4	0.13300	0.99	9900	0.87	0 - None
		Silicon dioxide	7631-86-9	0.39093	2.91	29100	2.56	0 - None
		Miscellaneous	System	0.08060	0.60	6000	0.53	0 - None
EP-QD 35	Other duromers			0.24398				
		Epoxy resin	25068-38-6	0.03016	12.36	123617	0.20	0 - None
		Silicon dioxide	7631-86-9	0.21382	87.64	876383	1.40	0 - None
Glass electrical contact	Ceramics / glass			0.01029				
		Lead silicate [Glass]	10099-76-0	0.01019	99.00	990000	0.07	7(c)-I
		Miscellaneous	System	0.00010	1.00	10000	0.00	0 - None
Glass enamel	Ceramics / glass			0.10674				
		Chromium oxide (III)	1308-38-9	0.00224	2.10	20986	0.01	0 - None
		Lead silicate [Glass]	10099-76-0	0.10450	97.90	979014	0.69	7(c)-I
Glass layer	Ceramics / glass			0.04574				
		Lead silicate [Glass]	10099-76-0	0.02287	50.00	500000	0.15	7(c)-I
		Palladium	7440-05-3	0.00762	16.66	166594	0.05	0 - None
Nickel plating	Nickel alloys			0.01525	33.34	333406	0.10	0 - None
		Ruthenium oxide	12036-10-1	0.01525				0 - None
		Nickel	7440-02-0	0.30522	99.90	999000	2.00	0 - None
Silver electrical contact alloy	Other special metals			0.00031	0.10	1000	0.00	0 - None
		Miscellaneous	System	0.50441				
		Bismuthous oxide	1304-76-3	0.01544	3.06	30610	0.10	0 - None
Silver layer	Other special metals	Chromium	7440-47-3	0.00001	0.00	10	0.00	0 - None
		Copper	7440-50-8	0.00001	0.00	16	0.00	0 - None
		Copper oxide	1317-38-0	0.00515	1.02	10210	0.03	0 - None
		Silver	7440-22-4	0.48381	95.92	959154	3.17	0 - None
		Silver	7440-22-4	0.03050				
Sn99	Other special metals			0.03047	99.90	999000	0.20	0 - None
		Miscellaneous	System	0.00003	0.10	1000	0.00	0 - None
		Tin	7440-31-5	0.56683	99.90	999000	3.72	0 - None
		Miscellaneous	System	0.00057	0.10	1000	0.00	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.